

# THE SCHOOL JOURNAL

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NEW YORK CITY

Vol. LXXVII. NO. 3

NOVEMBER, 1909

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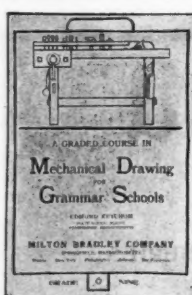
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# THE SCHOOL JOURNAL

A Monthly Journal of Education

Vol. LXXVII.

November, 1909

No. 3

OSSIAN LANG, Editor.

## Thoroness and Honesty

Our ancient friend Thoroness will not down. The spelling reformers have reduced his dimensions, yet he occupies as much space as ever in discussions bearing upon the program of elementary school studies. The term is a most elastic one. One critic desires to suggest that the methods of teaching are too playful; another, that too many subjects are carried on; a third, that the periods of instruction are too short; a fourth, that not enough attention is given to reviewing.

Professor Münsterberg\* writes: "The school which works for thoroness, and that means for the training of an attention devoted to that which does not appeal to immediate interest, serves the highest interests of the future."

The distinguished psychologist realizes the danger of substituting pleasure for duty. But he does not want thoroness to mean a "lingering over every detail." With him it is the virtue which compels the pupil to do whatever is done as well as he can possibly do it. This is the only sensible view to take of thoroness: The pupil must know what is expected of him and do it honestly. This kind of thoroness is needed in practically all phases of our national life.

The word thoroness has been so frequently misused, especially by the opponents of the enrichment of school programs, that it may be well to choose a better one. Honesty might do. Responsibility would be still better. The complete exhaustion of the lumber supply may appear to be a thoro procedure, but it certainly is a most irresponsible one. If thoroness is to be regarded as a virtue, the forest devastator might be considered a fine exemplar. There can be no danger in urging teachers to train their pupils in responsibility. There is danger in telling teachers to be thoro.

There is need of responsibility in utterance. Each political campaign furnishes new proof of this. The Cook-Pearry controversy illustrates the national weakness very forcibly. The partisanship of the rabble is readily understood to be a result of ignorance and inability to reason wisely. George Kennan's peculiar outbreak in *The Outlook*, too, may pass as of little consequence, since the writer has not proved himself particularly discriminating in judging lands and peoples even at first hand. But when university professors appear in public print with rash accusations and grave impeachments founded on nothing more solid than newspaper gossip—Professor Tarr of Cornell, for instance, and Professor Giddings of Columbia,—there seems to be occasion for advising responsibility of utterance.

Caspar Whitney, who is perhaps the best American authority on outdoor sports, publishes in *Collier's* for October 16 a severe arraignment of "the lawless spirit" which he says is "so much in evidence wherever American teams and American individuals show in competition." Smartness counts for more than honest effort, if only the vic-

tory is snatched thereby. "The slogan of American teams is to beat the rules," says Caspar Whitney. And he says what he knows.

Responsibility implies loyalty to the highest principles within us. Honesty is first: honest work and honest play. We want to succeed. We want to win. But not by the methods of gamblers, pickpockets and banditti. The schools and the teachers which reward effort rather than results are helping on the bettering of the national spirit. Competitive examinations and the giving of prizes to the winner are out of place in the school. Here at least honest toil should receive recognition and reward.

Unswerving respect for law is the mark of a responsible being. So is conscientiousness in little things. Nothing is trivial that is part of the responsibility entrusted to one. The cathedral builders had the right idea: The beautiful work often found in places where only the most careful searcher could find it shows that they labored as if the eye of the all-seeing God were watching every stroke of the mallet. Pleasing the boss and doing one's tasks just well enough to hold the job are the earmarks of irresponsibles.

Teachers have frequently abused the caution to be thoro. Keeping at a thing is not thoroness. Psychology and common-sense have demonstrated that there is a point where the pursuit of a particular activity becomes fruitless. Technically it is known as the fatigue point. Disregard of it leads to listlessness, carelessness and superficiality. Hence it is the opposite of thoroness. The teacher who trains pupils in habits of honesty and responsibility keeps within the limits marked by fatigue conditions.

If Dr. Rice is right in saying that fifteen minutes is a reasonable time-allowance for spelling, the holding on to spelling for an hour at a time cannot be excused on the plea of thoroness. There are more fitting words to characterize this waste.

In order that the pupils may do the best work they are able to do, the conditions must be right. An exhausted mind is not a responsible one.

(1) Let the teacher strictly and consistently refuse to accept any work from a pupil that does not bear evidence of an honest effort to do the best he is able to do. Cleanliness and penmanship afford a fair basis for a judgment of the product.

(2) Let the teacher reward effort rather than result. Progress and steady improvement must count for more than smartness and sporadic effulgences of brilliancy. The spirit behind the product must count for something.

(3) Let the teacher keep well within the limitations which psychology has pointed out as necessary to responsible activity. Child study and a heart warm with sympathy for the struggling learners will let you know when the fatigue point is reached along any particular line of endeavor.

(4) Thoro work is honest work. Thoro play is honest play. Thoro teaching is honest teaching, responsible teaching. "Not with eye-service, as men-pleasers; but in singleness of heart."

\* "Psychology and the Teacher," published October 15, 1909, by D. Appleton & Co.

# Cheerful Confidences

## Prospectus

When you find yourself thrown in for an hour or so with a teacher, and the social instinct gets a-working, you discover either one of those cheerful souls with good digestion, sweet breath and radiant optimism, or an unfortunate personality that has contracted the whining habit. Both states are contagious. THE SCHOOL JOURNAL will undertake to set aside a portion of its pages every month as a little school garden for the propagation of cheerful cultures. We have engaged the services of a Head Gardener, who has been sowing smiles in school for thirty years and undertakes to plant here any pretty flower you may send him.

Come on, then, teacher, whether you be that bright-eyed girl in charge of the district school at Carpenter's Corners, with the flowers in the window-boxes and the sunshine in your smile, or whether you be the jolly fellow in charge of the Palmer School in big Chicago; when you think one of those thankful thoughts that gives your efficiency gauge a jump upward several degrees, let's have it for the benefit of that Moody Mortal down in Maine who moans about the dreariness of pedagogy and the dreadfully hard life the teacher leads. Everybody has choice moments of elation when it seems as tho no privilege in the world can compare with the opportunities of a teacher. There are times when a thought flashes on you that cheers you for hours. What is it? Give it permanence, preserve it for darker days by getting it into words and into print. Go get a pen and paper. Pass the cheerful thing along. It is a choice thing to be put into an envelope and mailed to The Cheerful Confidant, SCHOOL JOURNAL, 11 E. Twenty-fourth street, New York.

## The Meat and Not the Shell

Some school men seem to be afraid of sentiment. Did you ever stop to think that every great reform in the history of education has been a sentimental one? Every text-book on our business makes Pestalozzi the father of modern education. Do you remember that Pestalozzi himself declares that the essence of education is not the method of teaching but that it is love?

Some superintendents, finding themselves in charge of a lot of schools and teachers and text-books and things, begin to compare themselves with heads of great businesses or armies or navies, or pride themselves on being men of affairs. They borrow or devise system; they contract *mechanitis scholastica*, and in a short time their mind is concerned with the machinery of education, not with its Pestalozzian essence. Educational Pharisaism is an observance of the forms of teaching with an absence of the real spirit, which is love. It is responsible for a well-worn phrase, "for the good of the school," which managers declaim as if the school really were an institution of any value at all as compared with the good of the children. Twenty years ago the absurdity of over-attention to methods aroused such ridicule that educators hesitated for some time to use the word "method" at all, but the error dies hard, and under the cover of the newer word, "system," the old mechanical ding-dong is with us yet.

But it is spirit that makes education, and spirit

dies in the shackles of system. That is an irritating statement to utter in the ears of the man who prides himself upon his executive ability, but the teachers of the big cities have been repeating it now for ten or fifteen years. Franklin Giddings, coming home from a lecture tour thruout the country, says the howl against educational red-tape is universal, so that he is led to define educational administration as "a systematic method of doing things that ought to be left alone altogether."

What should the superintendent do, then?

Some of us think that if the superintendent did nothing the general average of results would be superior. The superintendent feels that he should originate. From this notion the progress is natural to the idea that he should, as soon as he reaches this stage, see that the teachers become merely the executors of orders. Their children become that also. Education becomes exactly what the father of it says it ought not to be.

The superintendent gets a passion for correction. Official correction is an antidote to love. Perhaps it ought not to be so, but it is. The reprimand, unmixed with praise or with sentiment, chills. This seems ridiculous to a superintendent, but I know, because I am not a superintendent or a principal, but one of the servants who do the real work (or try to) for which the schools are maintained. When I am cheerful and jolly and hopeful my children learn rapidly, and undertake cheerfully tasks which of themselves are distasteful.

No normal child dislikes to work. It is their love of me that furnishes nine-tenths of their willingness to work. If my boss hampers me with system and calls me down for my entanglement in it he makes me more or less unlovable and my teaching to that degree a failure.

I have to give out a good deal of affection in the course of a year. Thoughtless children bother me when the "divvle" of mischief gets into them. If I am patient and merry and confident and inspiring it uses up some nervous fluids. There will be several hundreds of us in a big school system in the same category. Where are we to look for a supply of merriment, cheerfulness and inspiration to make up for the outgo we are emanating all the time? I get mine back from the children, from the parents and from friends. But when I have an official superior who is looking for good things done by me, who says, "That's fine, keep on," he stocks up my normal reservoir more quickly than any other source of supply can do.

I had a principal once who seemed to spend the most of his time in the classroom. He was there so much and we teachers were so used to it that he seemed like one of the family. One day he said, "Your children are thoroly fond of you; I don't wonder." That was all. It had more effect in giving him a good school than if he had required me to read five feet of books on teaching.

You may take it from me, Mr. Manager, who am one of the 3,500 teachers in a system, that attention to the spirit of education instead of to its form will amount to infinitely more than all your schemes of rating teachers, your lessons on the course of study, and your monthly meetings to instruct us in the methods of teaching.

A fatherly man at the head of a school system, not glued to an office chair, circulating about



where the work is done, finding more things to praise than to blame, can be a center of radiant life and inspiration for the life of the whole city. He has got to see that the meat of the educational nut is love, while system was intended only as a protective and conserving shell; not the chief thing at all.

CHARLES H. ROBBINS.

### Laughter

In the Albany public library there is a collection of manuals for the use of teachers, issued by various superintendents of schools in various cities of the United States. I spent an entire afternoon reading them. There are some very helpful things in them, but nowhere could I find any superintendent directing any teacher to endeavor to encourage the exercise of laughter in the classroom. I do know of many teachers who stop a laugh immediately when it begins to generate in a class, no matter what its cause. It is my own practice to suppress giggling, which is a nervous disorder, and to stop laughter which is hurting the feelings of any one who has made an awkward mistake, but I do aim to get as much healthful laughter into the classroom as I can. I do this by means of funny games, of which I have made quite a collection; contests in which the children know that ludicrous failure is to be expected. I take part in these myself, taking pains not to be any more nor any less dignified than any woman, not a teacher, would be in a circle of her friends. I am very fond, myself, of really funny situations upon the stage, and I go to the theater every time I get a chance. I see many scenes of clean fun which I can have the children reproduce in school as recreation from harder work.

I have read that the habit of hearty laughter tones the nervous system, prevents cancer, is a specific against many forms of dyspepsia, increases the supply and the quality of the blood, makes one more agreeable, companionable and serviceable and frequently prolongs life. I should think, therefore, that the cultivation of the right kind of laughter in school would be the object of some of the more progressive superintendents.

ANNIE F. DREY.

### School Teaching and Happiness

Teaching school never made anyone unhappy. If you find an unhappy teacher the cause of it is not that she is a teacher. The reason is elsewhere to seek. Teaching, itself, is one of the happiest processes that can be named. There are two kinds of unhappy teachers: Those that are unhappy anyway, those that are happier when not teaching than when they are. The latter serve as an indication that there is something wrong with the school.

A prime source of happiness is respect. Every teacher, even the worst, has many qualities worthy of respect. The head of a school sometimes seems to have a strong desire to be respected. It is much more important that his teachers should be respected. If he will make it his business to find traits in even the cheapest and most unworthy of his teachers—qualities of character worthy of respect, he may by degrees, without encouraging the offensive and concealed sides of their natures, bring such teachers to respect themselves and thereby to be more happy. The happier a teacher the more efficient is the school.

HAROLD P. WELLS.

## From Teachers' Workshops

### Compositions for Boys

It is often a puzzle how to interest older pupils, boys especially, in written exercises in language. One day I told my sixth grade class, three-fourths of whom are boys, that I did not know anything about baseball, and I wished they would explain it very plainly to me, so that when I went to see a game I would understand it well enough to be more interested in it.

There was no lack of enthusiasm in that day's work, and the result was well written papers, most of them illustrated by little sketches of the diamond and the players. Meanwhile, the girls wrote upon "A Day's Housekeeping," and enjoyed their work just as much, besides giving me quite an insight into their home life.

Another lesson they all liked was writing each his own autobiography. This was preparatory to some simple work in short biographies of a few of our best-known historical characters.

Illinois.

LYDIA GREGORY.

### Unto Life

The long, sweet days of summer have slipped away into the past of memory, and again the open book of Nature has been exchanged for the printed book of Man, which we seem better able to interpret and to teach. The children—bless their hearts—have left hill, stream and field with reluctant steps, allowing with regret the school-house doors to shut out the sights and sounds so dear to childhood, bringing into subjection their romping feet, busy hands and ringing voices. All must be still—they must not even whisper, while they learn how to spell *dromedary*, define the *verb* without practical illustration, and find out how many gallons there are in some "old well."

Have pity on them, Teacher, they don't want to. Hurry up the dimensions of that woodpile, and let them measure a breath in a rainbow-hued soap-bubble, and tell you what the shining cell contains, and what the surface colors are. Hurry up the noun, and let them illustrate it with brush and paint and garden vegetables. Liven up those "old g'ogafy lessons" with tales of the Mouse Tower on the Rhine; the giants of the Black Forest, the mythology of Rome; the vikings of the Northland; King Alfred and the Danes; the awful Huns and all the lovely stories that you know, about the places on the earth, to delight those young ears,—insisting that the ears be clean, or you won't tell them. You can people the barest, dingiest, most jail-like old schoolroom with such odd imaginary people; hang its cracked, gray walls with such charming pictures of imagination; conduct on imaginary railroads and steamships such delightful imaginary pilgrimages, that you can hardly shoo the blessed youngsters off at four o'clock.

What delightful possibilities in marching!—now stealing up to the Plains of Abraham with Montgomery in the lead, now forming for battle—right flank, left flank, forward and rear guard. I do not know whether these are the right turns or no, but you can look it up. The narrow aisle would make a good Thermopylae for opposite advancing columns. The plain of Marathon could be well illustrated about the rostrum, including the famous charge on that immortal occasion. In fine, instil into every dead letter a live idea, and you will best teach each boy, and each girl, how to be alive and doing in a world that never stops for anything.

ALICE A. FLAGG.



## HARVEST HOME.

John Oxenford.

George Macfarren.

Arr. by W. L. T.

*♩ = 96. Spirited.*

Har-vest home! Har-vest home! Har - vest home! Har-vest home! Har-vest home!

Loud-ly shout,  
Har - vest home! We come, we come and we bring the last load of the gold-en grain. Loud-ly  
Come! . . . . .

loud - ly Har - vest home! . . . . Har - vest  
shout, shout a - gain, a - gain, a - gain! Loud-ly shout, . . . . loud - ly shout, . . . .

Har - vest home! . . . . Har - vest  
home! . . . . The fields . . . . once more have boun - teous been,  
. . . loud-ly shout, loud-ly shout, Har - vest home! fields once more have  
home! . . . .

O'er them the wa - vy grain was seen, But now they are robb'd of their am - ple  
boun - teous . . . . grain, . . . . Now . . . . am - ple

store, Shout once more, . . . . shout once more, . . . . .  
store, shout once more, Once more, shout once more,  
Shout once more, . . . . shout once more, once more,

*cres. molto rit. ff*  
Har-vest home, har-vest home! har - vest home! Har-vest home! har-vest home! har - vest home!

From THE LAUREL SONG SERIES (William L. Tomlins, Editor), published by C. C. Birchard & Co., Boston.  
By permission.

# Memory Gems for November

(Saturdays and Sundays omitted)

NOVEMBER 1

He who has health, has hope, and he who has hope, has everything.

—ARABIAN PROVERB.

NOVEMBER 2

Sloth makes all things difficult, but industry all things easy.

—FRANKLIN.

NOVEMBER 3

Kindness is wisdom; there is none in life but needs it and may learn.

—BAILEY.

NOVEMBER 4

I have no secret of success but hard work.

—TURNER.

NOVEMBER 5

The great art of learning is to undertake but little at a time.

—LOCKE.

NOVEMBER 8

Do little things now; so shall big things come to thee by and by asking to be done.

PERSIAN PROVERB.

NOVEMBER 9

He is great enough that is his own master.

—BISHOP HALL.

NOVEMBER 10

It is not how much we have, but how much we enjoy, that makes happiness.

—SPURGEON.

NOVEMBER 11

It is of no use running; to set out betimes is the main point.

—LA FONTAINE.

NOVEMBER 12

Do not anticipate trouble, or worry about what may never happen.

—BENJAMIN FRANKLIN.

NOVEMBER 15

It is for want of application, rather than of means, that men fail of success.

—ROCHEFOUCAULD.

NOVEMBER 16

Fortune befriends the bold.

—SMOLLETT.

NOVEMBER 17

Circumstances! I make circumstances!

—NAPOLEON.

NOVEMBER 18

The more we do, the more we can do.

—HAZLITT.

NOVEMBER 19

Not failure, but low aim, is crime.

—JAMES RUSSELL LOWELL.

NOVEMBER 22

Too low they build who build below the skies.

—YOUNG.

NOVEMBER 23

We are often able because we think we are able.

—J. HAWES.

NOVEMBER 24

Doing is the great thing. For if, resolutely, people do what is right, in time they come to like doing it.

—JOHN RUSKIN.

NOVEMBER 25

[THANKSGIVING DAY]

For waking and sleeping, for blessings to be, We children would offer our praises to Thee!

—SANGSTER.

Still let us, for his golden corn,

—JOHN G. WHITTIER.

A kindly act is a kernel sown,  
That will grow to a goodly tree.

—JOHN BOYLE O'REILLY.

NOVEMBER 29

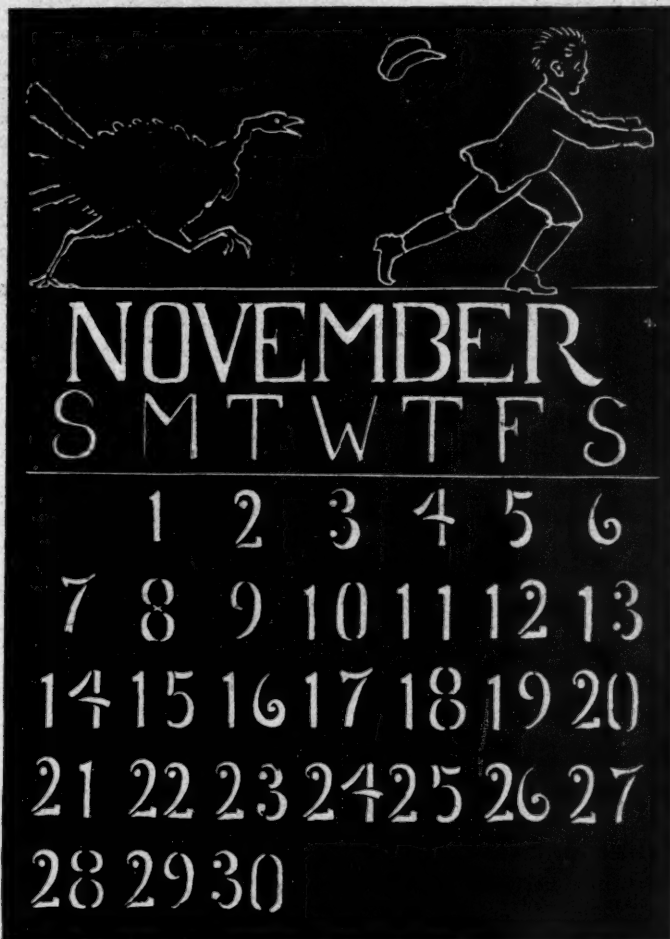
He that can have patience, can have what he will.

—FRANKLIN.

NOVEMBER 30

Victory belongs to the persevering.

—NAPOLEON.



Blackboard Calendar Designed by G. H. Shorey

# Principal Voyages of Arctic Exploration Before 1908

By MAUD ELMA KINGSLEY, Maine

## I.—EXPEDITIONS IN SEARCH OF A SEA PASSAGE NORTH OF ASIA

<i>Explorer</i>	<i>Date</i>	<i>Region Explored</i>	<i>Notable Incidents</i>	<i>Results.</i>
Willoughby and Chancellor (English).	1553	Ocean north of Norway and Lapland.	Sir Hugh Willoughby and his crew of 60 men perished of cold and scurvy.	Commercial intercourse between England and Russia thru the White Sea.
Burroughs and Pet (English).	1556 to 1580	Ocean north of Russia.		Discovery of Nova Zembla and the Kara Sea.
William Barents (Dutch).	1594 and 1596	Barents Sea, near Nova Zembla.	Open boat journey from Nova Zembla to Lapland; death of Barents.	Discovery of Whale fishing grounds.
Simeon Deshneff (Russian).	1648	Northeast coast of Asia.		Discovery of the strait separating Asia from America.
Laptieff and Tchelyuskin (Russian).	1737 and 1742	North coast of Asia.		Mapping the Asiatic coast line.
Liakhoff (Russian).	1770	Ocean north of Asia.		Discovery of New Siberia Islands.
Adolf Eric Nordenskjöld (Swedish).	1878 and 1879	Ocean north of Asia.	Voyage from the Atlantic to the Pacific made in comfort and comparative safety.	Accomplishment of the Northeast Passage.

## II. EXPLORATIONS IN SEARCH OF A SEA PASSAGE NORTH OF NORTH AMERICA

Martin Frobisher (English).	1577 and 1588	Coast north of Hudson Strait.	Mining of "fools' gold"	Nothing accomplished.
John Davis (English).	1585 to 1588	Region of Davis Strait.	First passage of the ice in Baffin Bay.	Map of Davis Strait to Latitude 70°.
Henry Hudson (English).	1610	Hudson Strait and Bay.	Hudson murdered by mutinous sailors.	Discovery of Hudson Bay.
William Baffin (English).	1616	Baffin Bay.	Highest latitude ever attained by a merchant ship, 77° 45'.	Map of Baffin Bay and entrance to Smith Sound.
Samuel Hearne (English).	1771	Arctic mainland of North America.	Accompanied an Indian war party.	Discovery of the coast at the mouth of the Coppermine River.
Alexander Mackenzie (English).	1798			Discovery of the coast at the mouth of the Mackenzie River.
William Parry (English).	1819	Waterways north of the American Continent.	First scientific observations north of the magnetic North Pole.	Map of the American Arctic Archipelago.
Franklin and Richardson (English).	1821 to 1825	Arctic mainland of North America.	Long sledge and boat journeys.	Practical completion of map of American continental coast line.
John Ross and James Ross (English).	1829 to 1834	Arctic Archipelago of America.	Five years continuously in the Arctic.	Magnetic North Pole located, 70° 5' N.—96° 44' W.



## III. EXPLORATIONS IN SEARCH OF A NORTHWEST PASSAGE

<i>Explorer</i>	<i>Date</i>	<i>Region Explored</i>	<i>Notable Incidents</i>	<i>Results.</i>
John Franklin (English).	1845 1848	Arctic Archipelago of North America.	This expedition, two ships and 129 men, vanished; and its fate was for years unknown. Records and remains afterward found indicate that Franklin died in 1847; that the ships were abandoned in 1848; and that the crew all perished in an attempt to reach the mainland.	The mystery of the fate of Franklin and his crew attracted universal attention and stimulated Arctic exploration and research.
De Haven and Kano (American).	1850 1851	Arctic Archipelago of America.	First American expedition to the Arctic.	
Richard Collinson (English).	1850 1853	Arctic Archipelago of America.		Sailed from Bering Strait to 100° west longitude and back.
Robert McClure (English).	1850 1854	Arctic Archipelago of America from Bering Strait east.	His ship, the <i>Investigator</i> , abandoned after three years in the ice; McClure and his men were taken to the Atlantic Ocean and home by a relief ship.	Discovered the "North-west passage," tho McClure did not actually accomplish it in one ship.
Francis McClintock (English).	1857 1859	Arctic Archipelago of America.	Long sledge journeys.	Finally solved the mystery of the fate of the Franklin expedition.
Ronald Amundson (Danish).	1902 1905	Arctic Archipelago of America.	Voyage from the Atlantic to the Pacific in a Norwegian fishing boat.	Accomplished the North-west Passage.

## IV. VOYAGES OF SCIENTIFIC RESEARCH IN THE DIRECTION OF THE NORTH POLE

Edward Inglefield (English).	1852	Strait between Greenland and Grinnell Land.		Sailed thru Smith Sound to 78°.
Elisha Kane (American).	1853 1855	Strait between Greenland and Grinnell Land.	Ship abandoned; boat voyage to Danish settlements.	Explored to 81° on Greenland coast.
Isaac Hayes (American).	1860	Strait between Greenland and Grinnell Land.		Explored Grinnell Land to 80°.
Charles Hall (American).	1871 1872	Strait between Greenland and Grinnell Land.	Hall died; ship wrecked on return voyage; part of the crew drifted 1,300 miles with the floating ice.	Passed thru the strait into the polar ocean, Lat. 82° 11'.
Weyprecht and Payer (Austrian).	1873 1874	Arctic Ocean north of Asia.	Ship abandoned; 400-mile retreat in open boats.	Discovered Franz Joseph Land north of 80°.
George Nares (English).	1875 1876	Strait between Greenland and Grinnell Land.	A "Highest North" record made by Markham and Parr, 82° 25'.	Mapped north coasts of Greenland and Grinnell Land.
De Long and Melville (American).	1879 1880	Arctic Ocean north of Bering Strait.	Ship sank; retreated to Siberian coast; De Long and more than half of his men perished.	Disproved theory that Wrangell Land (discovered by an American whaler in 1867) was part of a polar continent.

Explorer	Date	Region Explored	Notable Incidents	Results
Adolphus Greely (American).	1881 1885	Strait between Greenland and Grinnell Land.	Expedition of soldiers depending on relief ships. Owing to the wreck of one of these ships, 18 of the 24 men of the expedition perished of starvation.	Discovered land north of Greenland; Lockwood and Brainard "highest north," 83° 24'.
Fridtjof Nansen (Norwegian).	1893 1896	Arctic Ocean north of Asia.	Nansen, with one companion, left the ship and, after making a new "highest north," 86° 4', sledged to Franz Joseph Land; the ship arrived safely at Spitzbergen.	Finally disposed of the theory of a polar continent by proving the circum-polar sea to be an ocean of great depth.
Robert Peary (American).	1886 1895	Greenland.	Sledging over a glacier-buried continent.	Located the northeast extremity of Greenland; proved the correctness of the prevailing theory of geographical conditions in Greenland interior.
Eivinel Astrup (Norwegian).				
Frederick Cook (American).				
Prince Luigi Amedeo, Duke of Abruzzi (Italian).	1899 1900	Ocean north of Franz Joseph Land.		A new highest record by Capt. Cagni, 86° 34'.
Otto Sverdrup (Norwegian).	1898 1899	Strait between Grinnell Land and Greenland.		Discovered new islands west of Grinnell Land.
Robert Peary (American).	1898 1902	Ocean north of Grinnell Land and Greenland.		Determined the northern limit of land in this region.
Robert Peary (American).	1905 1906	Ocean north of Grinnell Land and Greenland.	Dash for the Pole failed on account of the drifting of the ice over which he traveled.	Reached "highest north," 87°.



## Practical Nature-Study

By FRANK OWEN PAYNE, New York

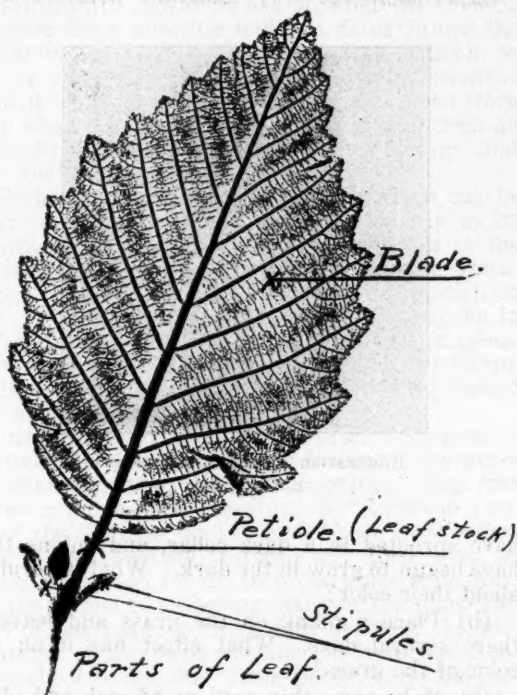
Of all plant organs the leaf is the most wonderful. It is the vegetative organ *par excellence*, and in a modified form it also appears as both the male and the female reproductive organ of the plant.

Leaves are the most conspicuous part of the majority of plants. The root is usually hidden away under the soil and the stem may be absent, or nearly so, but it is the leaf that gives character and distinction to most plants.

Leaves are very desirable objects for nature-study. Their abundance, their endless variety, their beauty and their usefulness to plants and to man make them eminently fitting objects for study.

### PARTS

A typical leaf consists of three parts; (a) the *blade* or *lamina*, which is the broad, green portion, (b) the *leaf stock* or *petiole* and (c) two small, leaf-like bodies situated where the leaf stock joins the stem of the plant called *stipules*.



Hazel nut

Illustration 1

Any of these parts may be missing. The stipules usually fall off soon after the leaf expands and so many plants seem to have no stipules when in reality they have shed them.

**Experiment 1.**—Procure many leaves. Which ones have all parts? Find some having no stipules (grape, maple, ivy). Find some having no leaf stock (thistle, bell-flower, grasses).

### FORMS

Leaves differ greatly in form. They may be easily grouped into three classes as to shape—(a) broadest at the base, (b) broadest at middle, (c)

broadest at the top. Any text in botany will supply names for all such forms. Familiar shapes such as heart, arrow, lance, spear, egg, oval, etc., will describe most of these.

### MODIFICATIONS

**Experiment 2.**—Procure a great many leaves and arrange them according to their general shape, placing those belonging to (a), (b), and (c) respectively together. Then try to name the forms found.

Leaf forms are greatly modified to fulfill certain functions. Thus spines on the cactus are leaves modified for defense; bud-scales are leaves modified for the protection of the bud within; and pet-



Illustration 2.—Horse-chestnut Bud Expanding  
The Budscales Are Modified Leaves

als are leaves so modified as to attract insects. The century plant and house-leek have their leaves very thick to serve as a storage-place for food.

### FUNCTIONS

**Experiment 3.**—Examine leaves of the barberry, thistle, aloe and live-forever. In what manner is each of these leaves modified? Why?

Leaves are essential to the life of the plant. They breathe, make starch, sugar and other foods and give off water and oxygen. Deprived of its leaves, a plant will produce more, but if these are removed the plant will soon die.

**Experiment 4.**—Remove all the leaves from a healthy plant. As fast as new leaves appear, remove them also. What effect follows?

**Experiment 5.**—Cut off two branches of equal size from the same plant. Cover the cut-off end with wax to prevent the leakage of sap. Then place one of these branches in a perfectly dry Mason fruit-jar, sealed up. Leave the other in the open air. After a few hours note the result.

**Experiment 6.**—Cut off a branch and place the cut end thru a hole in a cardboard so that it dips beneath the surface of a glass of water. Then invert over the branch a tumbler which has been carefully dried. Stand in the sunlight for half an hour and note the result.

**Experiment 7.**—Select two large leaves. (Hydrangea leaves work well.) Coat the upper side of one and the lower side of the other with oil or



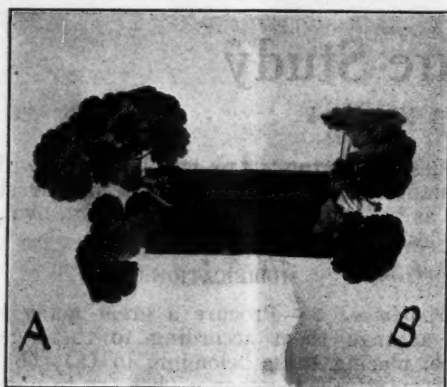


Illustration 3.—Top View  
Geranium Growth with Reference to Light. A. Spreads to Side. B. To Top.

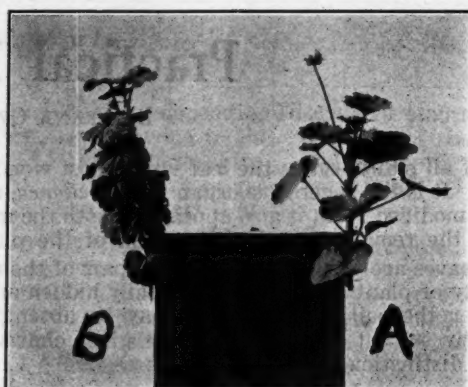


Illustration 4.—Side View  
Geranium Growth with Reference to Light. A. Spreads to Side. B. To Top.

vaseline. Let them lie in the sunlight for a short time. What is the result? From this experiment which side of a leaf gives off the water?

*Experiment 8.*—Another form of this experiment is to take two leaves and lay them upon a cold glass surface, one having its lower side next to the glass, the other with its upper side so situated. Lay a piece of felt or flannel over the leaves and after a while remove both carefully. There will usually be seen a film of dew where one leaf was but none under the other. Under which leaf was the dew found? Why?

*Experiment 9.*—Cut off a leaf and let it lie upon the table until it begins to wilt. Then place it so that its leaf stock is in a glass of water. What occurs? Why? The foregoing experiments will prove that water is given off by leaves, that it comes out most abundantly from the *under* surface and that wilting is due to loss of water.

Green-grocers often make use of this by taking vegetables which have become withered and immersing them in a tub of water for some time. They then come forth looking as fresh as when gathered from the garden.

*Experiment 10.*—Select a leaf and place it in

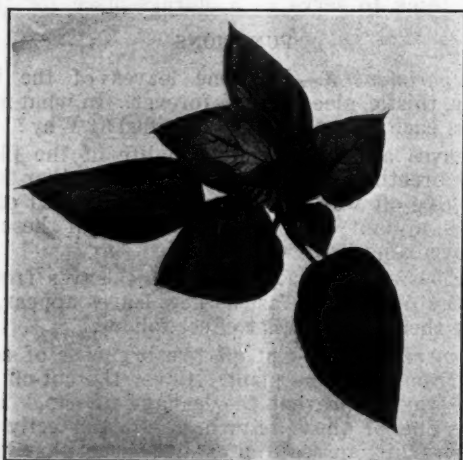


Illustration 5.—Plant Growing in a Dark Box

End of Catalpa Twig, Showing Leaf Rosette

a tumbler so that the petiole dips into a solution of eosin. In a few minutes the red color will spread up the stock and tinge certain parts. From this experiment where do you conclude that the sap circulates?

*Experiment 11.*—(a) Place some water plants in a glass of water in the sunlight. What change takes place. Gather some of the gas in a test tube.

Does it burn? Does it support combustion? This gas is oxygen. (b) Place the same apparatus in the dark. Does oxygen still come off?

Many pond plants come to the surface at daytime if the sun shines, but at night and on cloudy days they settle to the bottom. How can you explain this?

*Experiment 12.*—(a) Examine potatoes that



have sprouted in a dark cellar, and onions that have begun to grow in the dark. What is peculiar about their color?

(b) Place a plank on the grass and leave it there several days. What effect has it on the color of the grass?

(c) Make some thin sections of cork and place them on opposite sides of a leaf, thrusting a pin thru so as to keep the corks in place. Put the plant in a sunny window for several days. Then remove the pieces of cork and note result. Why?

*Experiment 13.*—(a) Place a plant in a sunny window, so that it receives light from one side. Leave it so for several days and note the result.

(b) Arrange a small plant in a darkened box having a small hole for admission of light and a screen inside to cut off access of direct light.

After a few days the plant will find its way to the window and will press out into the light as shown in Illustration 5.

By these experiments it will be seen that leaves need light in order to perform the work which they are expected to do. Other similar experiments will readily suggest themselves.

# Grammar School Course in Literature

By HARRIET E. PEET, State Normal School, Salem, Mass.

## Selections from Tennyson

### SHORT POEMS

"The Owl"; "The Bugle Song"; "Sweet and Low"; "The Eagle"; "The Brook"; "Flow Down Cold Rivulet"; "The Bee and the Flower"; "The Snowdrop"; "Flower in the Crannied Wall"; "The City Child"; "The Beggar Maid"; "Lady Clare"; "Charge of the Light Brigade"; "The Goose"; "Merlin and the Gleam."

### LONGER POEMS

"Gareth and Lynette"; "The Revenge"; "The Lady of Shalott"; selections from "Ulysses"; "Æneid"; "The Lotos-eaters"; "Sir Galahad"; "Enoch Arden."

The chief purpose of literature is the creation of sentiment. An author wishing to immortalize a thought or a word clothes it in such language that the emotions of the reader are aroused and the thought with the emotion, good or bad, lives. Since this is true it is most important when selecting literature for children to consider its type of sentiment. We must ask whether the emotion aroused by a selection will benefit or injure the children. Will it give them a true outlook on life or make them sentimental and unreasonable? Will it broaden their sympathies and make them love what is ennobling? Or, will it give them an unhealthy taste for melodrama and things that are low?

Perhaps the broadest distinction which can be made between literature which is healthy in its emotion and that which is unhealthy lies in the sincerity of the literature itself. Sincere literature is that which is an honest interpretation of life. It contains truth couched as it may be in a fable, fairy-tale or other form of the imagination, but truth at all hazards. Insincere literature is that that is written for effect with no regard for actual truth.

Just as sincere literature is often expressed in a flight of the imagination, insincere literature as often tells of every-day happenings. The first form contains such literature as "Robinson Crusoe," the "Jungle Books" and "Alice in Wonderland"; and, because truth in any form even as nonsense is good for us, such literature is healthy. To the second form belong many of the inane stories of our reading-books, but, perhaps, the best example of this type are the old-fashioned Sunday-school books, the "Elsie Books," and the stories by Henty. Such literature either saps all the sincerity out of children and makes them prudes, or it gives them a taste for melodrama.

Another equally important distinction lies between sentiment which is appropriate for an adult and not for a child. It is well enough for a mature mind to grasp at truth thru satire, cynicism, and pessimism, or to enjoy reflections on nature or the play of the imagination about romance. It is good for an adult to reflect on deep religious or philosophical problems which to him are full of meaning. All these things are singularly inappropriate for children, and yet how often they are given to them! The result is always unfortunate; either the children are made precocious or they gain a permanent dislike for good literature.

The interests of children center about a different type of thought, the homely and beautiful sen-

timents of the family circle, the domestic affairs of pets and wild natures, and the less romantic, but no less real, life of the playground and school. Love for parents, brothers, sisters, and friends are things which the children can readily understand in literature, together with such a lowly emotion as love for animals, or such broadening ones as patriotism and heroism. It is these things which literature should give dignity to, strengthen, make beautiful and otherwise enhance. In other words, all phases of life which are real to a child should be lifted from a plain of sordidness and the commonplace, into the realm of beauty and nobility thru literature. Since this is true, it seems inexcusable to leave a world of riches when searching for literature for children, and invade the land belonging to the adult, which must always prove barren for our purpose.

A third distinction refers to literary form. With the interpretation of life thru the emotions of noble literature should come one other development, that of the æsthetic sense. We should choose such literature for the children, therefore, as will give them a feeling for rhythm, the perception of a word rightly chosen, sensitiveness to all the delicacies of form which distinguish good literature from bad. The importance of this is realized when we consider that it is such a perception which will save a child from all the perils of the warped ideals and sentimentalism of yellow-backed literature. If a child has a feeling for beauty of form poor literature is distasteful to him.

No selections require such power in discrimination of sentiment as those taken from Tennyson. Perhaps the reason for this is that no poet has such variation of emotion in his poems. Some of his works are most ennobling and beautiful; some are dangerously near, if not quite, mawkish and sentimental. Some are of a nature to be appreciated only by a person who has lived thru grief and sorrow and other experiences which come with a long life; some are so delicate in their texture that only a person of a highly-developed æsthetic sense can appreciate them; but others are so simple that any child can enjoy them.

It is easy to distinguish certain works of Tennyson which must be barred from the school curriculum on account of their overstrained and sentimental nature, like "The May Queen," "Lady Clara Vere de Vere," "Lord of Burleigh," "Locksley Hall," and "Maud." Such sentiments, even when clothed in beautiful verse, are unhealthy for an adult. How much more so for a child! It is easy to bar certain pieces because they were written for adults, such as "In Memoriam," the "Princess" and the dramas. But there are other things, like the "Idyls of the King" and "Enoch Arden," that lie on the border line between what is appropriate and what is inappropriate.

The "Idyls" form an heroic cycle and are a great epic. They deal with honor, chivalry, and with many other high and noble sentiments with which our children should be familiar. Why may we not use them in the seventh or eighth year of the grammar school? To begin with, the poems lack in objective interest. They are symbolic and allegorical. In the second place they are essentially mediæval in spirit. Their very essence is



love and war romantically and artificially conceived. Their battles are not real ones, but tournaments or mock battles. Their ladies are not women of flesh and blood, but pale-faced, unnatural princesses. In the third place, the stories are written in a lingering cadence which is too complex and difficult, as well as unhealthy, for a child. Only one of the "Idyls" seems appropriate for even the older children; that one is "Gareth and Lynette." This is more simply told and deals with a more simple theme than the others. It gives the children a good idea of a true and brave gentleman put to the hardest tests possible. There is no emphasis in it or romantic love.

Such narrative poems as "Enoch Arden," "Dora," "The Miller's Daughter," are stories so simply told and so easily comprehended that they seem at first usable. The language, the similes, the description, are all beautiful. On reflection, however, these are found to be overstrained and too sentimental for childhood.

Another class of poems that are on the borderline are certain classic tales, such as "Ulysses," "The Lotos-eaters," and "Ænone." All are wonderfully beautiful in their form, but they seem to lack the simplicity which must mark a poem for a child. They cannot be understood. The best way to use them, therefore, is to choose bits here and there and quote them in connection with stories.

The selections which are appropriate for children are the ballads and songs. Tennyson was a master with these. No one since the days of Robert Burns has been able to create such lyrics.

"The Owl," for example, has the spontaneity of emotion, the beauty of diction, together with the simplicity which mark a lyric of the highest order:

When cats run home and light is come,  
And dew is cold upon the ground,  
And the far-off stream is dumb,  
And the whirring sail goes 'round;  
Alone and warming his five wits,  
The white owl in the belfry sits.

When merry milkmaids click the latch,  
And rarely smells the new-mown hay,  
And the cock hath sung beneath the thatch  
Twice or thrice his roundelay;  
Alone and warming his five wits,  
The white owl in the belfry sits.

The other song to the owl, "The Brook," "The Bugle Song," "The Eagle," "The Thrustle," as well as many others, all have the same quality and help to quicken a child's æsthetic sense.

Among the ballads "Lady Clare" is perhaps the most satisfactory as to story and character. It is simply told and helps the children in their conception of honor and loyalty. "The Goose" is amusing, "The Beggar Maid" a pretty story, and "The Revenge" heroic and vigorous. "The Lady of Shalott" has an air of mystery about it which gives it great charm. Such a story, which idealizes and elevates love, is perhaps the best introduction to romance which children can have. The far-away, other-world-character lifts it from a personal implication and sentimentalism. Among the selections which can be used to advantage either in connection with story-telling or for the sake of their own individual sentiment or thought, are the following:

Howe'er it be, it seem to me  
'Tis only noble to be good.  
Kind hearts are more than coronets,  
And simple faith than Norman blood.

—LADY CLARA VERE DE VERE.

Self-reverence, self-knowledge, self-control,  
These three alone lead life to sovereign power.

—ÆNONE.

How sweet it were, hearing the downward stream,  
With half-shut eyes ever to seem  
Falling asleep in a half-dream!  
To dream and dream, like yonder amber light,  
Which will not leave the myrrh-bush on the height;  
To hear each other's whisper'd speech;  
Eating the Lotos day by day,  
To watch the crisping ripples on the beach  
And tender curving lines of creamy spray.

—THE LOTOS-EATERS.

How dull it is to pause, to make an end,  
To rust unburnished, not to shine in use!  
As tho to breathe were life!

—ULYSSES.

It may be we shall touch the Happy Isles,  
And see the great Achilles whom we knew.

—ULYSSES.

No sail from day to day, but every day  
The sunrise broken into scarlet shafts  
Among the palms and ferns and precipices;  
The blaze upon the waters to the east;  
The blaze upon the island overhead;  
The blaze upon the waters to the west;  
Then the great stars that globed themselves in heaven,  
The hollow-bellowing ocean, and again  
The scarlet shafts of sunrise—but no sail.

—ENOCH ARDEN.

#### THE KNIGHT'S VOW

I made them lay their hands in mine and swear  
To reverence their king, as if he were  
Their conscience, and their conscience as their king,  
To break the heathen and uphold the Christ,  
To ride abroad redressing human wrongs,  
To speak no slander, no, nor listen to it,  
To honor his own word as if his God's,  
To lead sweet lives in purest chastity.—GUINEVERE.

In conducting an exercise on a short poem the teacher must work to awaken the interest of the pupils by some anecdote or bit of description which will bring the thought and mood of the poem home to the children. After her talk in connection with the first reading of the poem, which should be given by her, the children must be led to study the poem in detail. They must be led to comprehend the meaning of each thought and the means by which the poet has made the poem beautiful. After the children have grasped the thought they will be ready to read and memorize the poem and perhaps write some little composition suggested by the thought of the poem or in imitation of its form. The following study of "The Eagle" will show the method of work suggested here.

*Introductory Talk.*—High upon a mountain crag the king of birds builds his nest of rough sticks. Sometimes he can be seen hovering near it against the blue sky. His wild screams are heard from far away. He is seen high up in the air, balanced on his broad black wings, when he is watching for his prey. The poet Tennyson has written two stanzas telling of his watching from a high rock on the mountain for prey in the water below.

#### THE EAGLE

He clasps the crag with crooked hands;  
Close to the sun in lonely lands,  
Ring'd with the azure world, he stands.

The wrinkled sea beneath him crawls;  
He watches from his mountain walls,  
And like a thunderbolt he falls.



*Study of the Poem.*—What does the poem show about the place where the eagle was watching for his prey? What shows that the eagle had strong claws? What shows that he is high in the air? What shows that he was on the highest point of the mountain crag or rock? What shows that the sea was far, far below him? What gives an idea of his diving with great rapidity when he saw his prey in the water?

What feeling is given by the poem? How has Tennyson given this feeling? What kind of a scene is pictured? What impression is given of the eagle?

Substitute other words for crag, ring'd and azure. What does each mean?

*Expression of Thought Gathered from the Poem.*—Reading (by children) to show the loneliness of the scene, the distance up the eagle is, and the suddenness of his fall.

*Memorizing.*—After the children are able to read the stanzas expressively they are ready to memorize it.

*Composition.*—A description of an eagle in a lonely land. A comparison of this description with the Breeding Eagle from "Shorab and Rustum."

## United States History

By MARY V. WORSTELL, in *St. Nicholas*.

### Signers of the Declaration

(Continued from last month)

#### PENNSYLVANIA

Pennsylvania sent more delegates than any other colony—nine.

(1) Benjamin Franklin was the oldest of all the signers. We may be sure that this truly great man was a prominent figure in that remarkable gathering.

Almost as notable was (2) Robert Morris, the great financier of the Revolution. Tho he was slow at first to favor independence, later he showed the truest patriotism, for his financial aid tided the young country over serious difficulties. "The Americans," says one historian, "owe as much acknowledgment to the financial operations of Robert Morris as to the negotiations of Benjamin Franklin, or even to the arms of Washington."

(3) Dr. Benjamin Rush may well be honored, for he was a physician of high standing; and in 1793, when Philadelphia was visited by yellow fever, and more than 4,500 fell victims in three months, Dr. Rush was one of three physicians who nobly remained at their posts.

(4) James Wilson was a young Scotchman who came to this country when he was twenty-one. By the time he was only twenty-six he was the acknowledged head of the Philadelphia bar. The name of this signer has recently been brought into notice. He died while at Edenton, N. C., but in 1906 his remains were brought to Philadelphia, where they were interred in the graveyard of Christ's Church. There were appropriate ceremonies in which many legal and patriotic societies took part, as well as representatives of the national government.

(5) George Clymer was another delegate of sturdy patriotism, and so was (6) James Smith. The latter was a man of genial disposition, keen sense of humor, and great benevolence.

(7) George Taylor was an Irishman, and came to this country to avoid studying medicine. He worked in a foundry, and after some years he became its proprietor.

(8) John Morton was a boy who had but three months' schooling, but this was followed by such wide reading and study, under the supervision of his stepfather, that in time he became one of the judges of the Supreme Court of Pennsylvania.

(9) George Ross, still another of the Pennsylvania signers, must have been a model delegate, for his conduct in Congress was so highly approved by his constituents that they voted him more than six hundred dollars with which to pur-

chase a piece of silver. But Ross was as modest as he was loyal, and he refused the gift.

#### MASSACHUSETTS

The five delegates from Massachusetts Bay formed a famous group.

(1) Elbridge Gerry was in public life many years. From the time when he first took his seat in the General Court of Massachusetts Bay, at the age of twenty-nine, till, as Vice-President of the United States, under Madison, he died at the age of seventy, his life was devoted to his country.

(2) Robert Treat Paine was born, so the chroniclers tell us, "of pious and respectable parents." He entered Harvard at the age of fourteen, and on graduating he taught school for a time in order to earn enough money to study law, and in time he won distinction as an able lawyer.

The careers of (3) John Adams and his kinsman, (4) Samuel Adams, cannot be summed up in a few words. John Adams was a man of marvelous industry, serving in Congress on no less than ninety different committees. He was twice vice-president before filling the presidential chair for one term; and the closing years of his busy and useful life were brightened by watching the career of his son, John Quincy Adams, who, in time, also became President—a wonderful record only equaled by the Harrisons of Virginia. John Adams was said to have "the clearest head and the firmest heart of any man in Congress." Samuel Adams embarked for a time in commerce, but this proved as disastrous as his political life was brilliant. He made no secret of his wish for independence, and this so irritated Governor Gage that he issued his celebrated proclamation in which he promised pardon to all who would lay down their arms, "excepting only from the benefit of such pardon Samuel Adams and John Hancock." He held many honorable offices in the young State of Massachusetts, and in time he succeeded John Hancock as governor.

(5) John Hancock was a born leader, and at the age of thirty-nine he was elected president of the immortal Second Continental Congress. Tho a rich man, he was a sincere patriot, for when it was proposed to bombard Boston, he gave a prompt and hearty assent, tho it would have caused his financial ruin. He loyally declared that his private fortune should on no occasion oppose an obstacle to the liberties of his country. Of all the signatures on the Declaration, we recall Hancock's first; for he said, when he wrote his name—he wrote with unusual distinctness—that "George III might read it without spectacles." Hancock was Governor of Massachusetts for many years.

# William Tell

## A Play in Four Acts

By E. FERN HAGUE, New York

### CHARACTERS

- William Tell  
 Emma Tell (his wife)  
 Walter Tell (his son)  
 Lalotte (his daughter)  
 Philip (his nephew)  
 Gessler (Governor)  
 Capt. Uni (of the German Army)  
 Herman  
 Henric  
 Guardsmen  
 Werner Stanflacher  
 Soldiers, Men and Women
- ACT I. Scene 1. Tell's Home at Eventide.  
 ACT II. Scene 1. Road Near the Fair Grounds.  
 Scene 2. The Fair.  
 Scene 3. The Marksman.  
 Scene 4. The Capture of Tell.  
 ACT III. Scene 1. The Storm at Sea.  
 Scene 2. Tell's Escape.  
 Scene 3. Tell's Return Home.  
 ACT IV. Scene 1. Switzerland Delivered.

### Act I

#### SCENE 1.—TELL'S HOME AT EVENTIDE

The living room. Supper is awaiting Tell's home coming.

*Philip.*—If Uncle doesn't come soon, his supper will be spoiled.

*Emma.*—What then?

*Philip.*—I was thinking it would be better for me to eat it than for it to spoil.

*Lalotte.*—Greedy boy! Would you eat your uncle's supper after having had your own an hour ago?

*Emma.*—Hush, children! Hark! I hear footsteps. Thy father is coming.

Enter Tell. Crossbow in hand. Quiver containing arrows slung over shoulder.

*Children.*—Have you been hunting? What news?

*Tell.*—My news is not for young ears. You should all be in bed.

*Children.*—Good-night, Father.

*Tell.*—Good-night.

Exeunt children.

*Emma.*—Why are you so sad?

*Tell.*—Emma, you do not know the sad state of affairs in Switzerland. Gessler, the Governor, is a tyrant! We should be rid of him. Today he put to death a brave and good man, and for nothing! Who knows but what I'll be the next!

*Emma.*—What can he have against you?

*Tell.*—He hates us all and would make us slaves. He has had erected a pole in the market-place, and upon that pole has placed the Ducal Bonnet. At the fair to-morrow, he will require all to salute it. I will not do it.

*Emma.*—But why go to the fair at all?

*Tell.*—I have skins to sell.

*Emma.*—Please be careful, William, I already fear trouble.

Exeunt.

### Act II

#### SCENE 1.—ROAD NEAR THE FAIR GROUNDS

Enter Tell with furs on his back. Walks rapidly toward the Fair. (Exit.) Enter Philip, leading Walter by the hand.

*Philip.*—Hurry a little, Walter, I fear we shall be late for the opening.

*Walter.*—Cousin Philip, please carry me a little way. I am so tired.

Philip takes Walter up on his back. Exeunt.

Enter Lalotte. Looking all about.

*Lalotte.*—That horrid Philip, to drag little Walter to the fair. I hope I can find them before they get into mischief.

Exeunt.

#### SCENE 2.—THE FAIR

Men and women are buying and selling their wares. Gessler is seated on a platform. Before him is erected a pole. Surmounting it is the Ducal Bonnet. Soldiers guard the pole.

Enter Tell. He sells his skins and turning to go, he passes the pole without seeing the Bonnet.

*Soldiers* (stopping him).—Stop! Salute the Ducal Bonnet!

*Tell.*—That hat is nothing to me!

*Gessler.*—Insolent traitor! Salute!

*Tell.*—I will not.

*Gessler.*—Seize him! Who are you?

*Tell.*—I am William Tell, the Cross Bowman of Burglen.

*Soldier.*—Your Highness, it was his nephew who threw the Ducal Bonnet into the river last evening. He stands yonder.

*Gessler.*—Seize the young villain.

Philip runs. Soldiers after him. He escapes.

Enter Lalotte and Walter.

*Walter.*—Father! Father!

*Gessler.*—(Grasping Walter by the hand.) So this is your son!

*Tell.*—He is, and I pray you, do not harm him.

*Gessler.*—If harm befalls him, it will be by your own hand.

*Tell.*—What do you mean?

*Gessler.*—I am going to see if you are so skillful as it is reported. If you can shoot an apple from your son's head, you shall go free.

*Tell.*—I will not shoot.

*Gessler.*—You will shoot or die!

*Tell.*—I choose now. I will not risk my son's life. Let me die.

*Gessler.*—But your son shall die also if you do not shoot.

*Tell.*—Give me my bow at once.

*Gessler* (to soldiers).—Take the boy to yonder grove and put the apple on his head.

Exeunt.

#### SCENE 3.—THE MARKSMAN

Voices from the grove.

*Tell.*—Turn thy face away, son, and trust thy father. Stand still.



*Soldier.*—Are you ready?

*Tell.*—Ready.

*Soldier.*—Shoot!

Quiet. Then a sudden shout of applause from the people.

*People.*—Bravo, Tell. Well done!

Enter Gessler. Tell leading Walter by the hand, followed by the people.

*Gessler.*—Now you and your son are free. (Tell turns to go.) But hold! Why is that arrow in your girdle?

*Tell.*—Tyrant, that was for you in case I shot my son.

*Gessler.*—Traitor! Seize him! You shall go to the dungeons of Kussnacht, where you can shoot no more.

Soldiers seize Tell and after a brief struggle tie him.

*Tell* (to Gessler).—You shall pay for this injustice! (Turning to his children.) *Lalotte*, take thy little brother home and comfort thy mother, and hope for better times.

*Gessler.*—Take him to the ship and watch him carefully.

*Exeunt.*

### Act III

#### SCENE 1.—THE STORM AT SEA

Tell, Gessler and soldiers on board. Tell's hands are tied.

*Capt. Uni.*—Sir, we have lost our bearings.

*Gessler.*—Can we make Altdorf before the storm?

*Capt. Uni.*—No, sir. The storm is blowing up too fast. The lake is full of rocks. We have lost our way.

*Gessler.*—Does anybody know where we are?

*Capt. Uni.*—William Tell knows the lake like a book, sir. He used to sail boats on it when a boy.

*Gessler* (to Tell).—Can you steer?

*Tell.*—I can.

*Gessler.*—Untie his hands, and give him the tiller. Watch him carefully. (To Tell.) If you try any treachery, I will kill you. Get us into the port quickly, or this storm will drive us upon the rocks.

#### SCENE 2.—TELL'S ESCAPE

*Gessler.*—In which direction is land?

*Tell.*—Straight ahead.

*Gessler.*—I see no town lights.

*Capt. Uni.*—We see no lights, sir.

*Tell.*—Watch when the next cloud lifts.

All turn their backs to Tell, who stealthily watches for land in the opposite direction. Ship strikes rocks. All but Tell fall down.

*Sailors* (scrambling to their feet).—We are aground, sir.

Tell grasps his bow and leaps out upon the rocks.

*Gessler.*—Stop him! Catch him!

*Capt. Uni.* rushes after him; stumbles and falls. Tell escapes. All chase him.

#### SCENE 3.—TELL'S RETURN HOME

Living room. Mother and children are gathered about the table, weeping. Enter Philip.

*Philip.*—Where is uncle?

*Emma.*—Have you not heard? Gessler has sent him to the dungeons of Kussnacht.

*Philip.*—Gessler has dared to do that? I'll rouse every man for miles.

Takes his horn from the wall and rushes out. His horn is heard in the distance.

*Lalotte.*—Will the men help father?

*Emma.*—They would give their lives for him. Hark!

Enter Tell.

*Children* (rushing to him).—Father!

*Tell* (waving his bow).—Gessler is dead! Now for the freedom of Switzerland. Hark!

A bugle blows and a party of Tell's friends following Philip enter.

*Werner and Stauffacher.*—Welcome, Tell! We were going to Kussnacht for you.

*Tell.*—I escaped from the ship and killed Gessler. Now is the time to strike for the freedom of Switzerland! Who will join our band?

*All.*—I! I!

*Stauffacher.*—Every man of us.

*Tell.*—Then meet me tomorrow at sunrise ready for battle.

*Exeunt.*

### Act IV

The Common before the Meeting House. Children and women are gathered.

*Lalotte.*—Our soldiers are coming home!

*Emma.*—Hear the drum?

Enter Soldiers, with Tell and Stauffacher at the head.

*Stauffacher.*—Soldiers and friends, you have fought and bled like brave men. Now Switzerland is delivered of the chains of slavery and we are free to go to our homes and live in peace and quiet. Farewell, friends!

*Tell.*—Go to your homes, friends, where your loved ones are waiting for you. Farewell. May we meet often in peace.

*All.*—Farewell—Tell—Hail! the Deliverer of Switzerland!

*Curtain.*

### The Discipline of Self-Direction

One day I had a lesson taught me of the quietness that makes for joy.

I am a young teacher, usually in perfect health, and make my second primary department a wide-awake place, where visitors are entertained and pupils kept enthusiastic and inspired.

One morning I entered my room with quaking heart. I was unable to speak louder than a whisper. I knew the children were well disciplined, but I had always been able to entertain them at restless times, and present their work in an attractive way. Could I hold their attention without a voice?

In the opening exercises I took no part, merely whispered directions. The songs were sung never more sweetly, the prayer by Canon Wilberforce repeated never more devoutly.

Study period came, still my faint heart doubted. From my desk I lifted the two text-books to be studied by the two divisions. I smiled as they brought theirs out and in thirty seconds every head was bent at as industrious an angle as if I had spoken with the tongue of angels.

And so it was all day long. When I wished to speak, I tapped on my desk, *not for quiet* but for their eyes. They could have heard my whispered directions at any time. It was all such a quiet change! They rested—so did I. And now, when four o'clock seems far away, and my ingenuity seems exhausted, I give up the idea of trying to entertain the restless eyes and tired backs. I think of the day of whispers, give them some quiet work to do, and again they become each an entertainer and instructor for himself.

*Nebraska.*

ADAH BEARDSLEY.



# Natural Resources of the United States

## The Coal Industry

By G. B. COFFMAN, Illinois

The first coal found in America was at Ottawa, Ill., in 1679, by Father Hennepin, a French explorer. The first coal mine worked in America was near Richmond, Va. This coal was discovered by a boy, while fishing along the James River. It was the outcropping of the James River Coal Beds.

The coal found in the United States may be divided into three classes: anthracite, bituminous, and lignite. In trade these are again sub-divided: anthracite and semi-anthracite, bituminous and semi-bituminous, lignite and sub-bituminous. Semi-anthracite is a low grade of anthracite; semi-bituminous is a high grade of bituminous; sub-bituminous is a low grade of bituminous. Bituminous is the soft coal of the East and lignite is the lowest grade of coal. Lignite is brown and woody and does not burn well.

### ANTHRACITE COAL

Pennsylvania produces almost all the anthracite coal in the United States. There is some found in Colorado and other of the Western states, but it is not the best quality. The total area of the anthracite fields of Pennsylvania is about 484 square miles. The entire anthracite region embraces a territory of 3,300 square miles. Only about one-sixth is underlaid with coal.

The anthracite coal fields are bounded on the north by the north branch of the Susquehanna River, on the west by the Susquehanna River. The Delaware and the Lehigh Rivers are on the east. The coal fields are drained by these rivers and the Schuylkill River. The coal fields embrace the following counties: Luzerne, Lackawanna, Schuylkill, Northumberland, Carbon, Columbia, Susquehanna, Dauphin, and Sullivan. The coal is not found in continuous beds, but in detached valleys or basins. The trend is from northeast to southwest, a distance of 120 miles. The greatest width is in Sullivan county, a distance of fifty miles.

There are four trade regions, known as the Wyoming, Lehigh, Schuylkill and Bernice. The Bernice region does not produce true anthracite coal and is often not classed with the other regions. Generally speaking, these regions are known as Northern, Eastern, Middle, Southern and Western Middle. Of these regions, the Southern is the largest.

In 1820, 365 long tons were shipped from these regions; in 1850 3,358,899 long tons were shipped; in 1890, there were 36,615,459 long tons shipped and in 1900 there were 45,107,484 long tons shipped. This shows the rapid increase in the output of coal. Since that time I have no definite figures, but at the present time the output is much greater. The above figures do not include the local consumption or that consumed at the collieries. There has been shipped from these regions more than 1,500,000,000 long tons of anthracite coal, and half of it came from the Wyoming region. At this time the Wyoming region is furnishing 60 per cent. of all the output.

More than fifty million tons are taken from the

Pennsylvania fields every year. The coal taken from this region exceeds in value all the gold mined in the United States.

Nicho Allen discovered the coal fields about the year 1790. He was hunting and lay down at night to sleep by his campfire. The next morning he found that the stones, as he called them, were on fire, and it was the heat that awoke him. Shortly after this a company was formed and the trade has been going on every day since.

Anthracite coal, when it comes from the mines, contains much slate-stone and dust. It must be broken up and picked over before it can be used. This is done with the coal breakers. Here the coal is separated and the lumps are classified. The lumps are run thru inclined troughs or chutes. As the coal goes down, the rubbish is picked out.

There are about eighty square miles of anthracite deposit in Colorado. This is true anthracite, and it is considered as good as the Pennsylvania anthracite. However, the most of the anthracite in Colorado is not the best. We also get some anthracite coal in New Mexico, but not enough to consider it. In Washington we mine some of the second-grade anthracite. This is the only hard coal found on the Pacific Coast.

The market for anthracite coal is almost all parts of the United States. It is used for heating purposes and requires a special kind of stove for its consumption. In late years the price has advanced so much that soft coal or bituminous coal is taking its place.

### BITUMINOUS COAL

The bituminous coal fields are scattered all over the United States. The total area is about three hundred and thirty-five thousand square miles. The customary way of speaking includes all soft coal under the head of bituminous coal. The bituminous areas have been divided into seven divisions: (1) Triassic, (2) Appalachian, (3) Northern, (4) Central, (5) Western, (6) Rocky Mountain, and (7) Pacific Coast.

The Triassic field is found in Virginia and North Carolina. It embraces the coal beds in the Triassic formation. In Virginia it is known as the Richmond basin. In North Carolina it is found along the Deep and the Dan Rivers, in Chatham county. Not much coal is taken from this section of the country. It is sometimes known as the coal in the Red Sandstone Formation.

The Appalachian field is the largest coal field in the United States. It extends from the northern part of Pennsylvania to the central part of Alabama. It follows the Appalachian Mountain system. Its width is from thirty to one hundred and eighty miles and its length nine hundred miles. The area is estimated at seventy-one thousand square miles. The productive sections are the western part of Pennsylvania and the western part of Maryland, the eastern part of Ohio and the southwestern part of Virginia, nearly all of West Virginia and part of Tennessee and part of Kentucky. It also includes the northwestern part of Georgia and almost all of Alabama.

All varieties of bituminous coals are found in this region. We have the famous Connelsville

coking coal in Pennsylvania; the Clearfield and Pittsburg steam coal; the famous gas coal; the smithing coals of Blossburg, Pa.; gas and coke-producing coals; the coal for iron reducing furnaces; the steam, gas and coking and domestic coal of the New and Kanawha River series; and the excellent coking and steam coals of Tennessee.

In 1880 the Appalachian field produced thirty million tons of coal; in 1889 it produced sixty-three million short tons; in 1902 it produced one hundred and seventy-four million short tons.

The Northern coal field is found in the lower peninsula of Michigan. It embraces an area of about eight thousand square miles. The coal of this region is given easy access to the ports of Lake Huron and from there to the ports of the Great Lakes. Even with this advantage little progress has been made until recent years. In 1880 the Northern field produced one hundred thousand short tons; in 1889 it produced but sixty-eight thousand tons, and in 1901 it produced more than a million tons.

The Central coal field lies in southwestern Indiana, central and southern Illinois and western Kentucky. This field contains about fifty-eight thousand square miles. Most of it is in Illinois, there being forty-three thousand square miles in that state. Eighty counties in Illinois produce coal, twenty-six counties in Indiana, and twenty in Kentucky. In Indiana the well-known "block" domestic coal is produced. Kentucky produces some coking coal. No coke is made with the Illinois and Indiana coal. This field is second in production. In 1880 it produced eight million tons; in 1889 it produced sixteen million tons; in 1902 it produced forty-six million tons. Illinois, at this time, was second as a coal-producing state.

The Western coal field contains ninety-four thousand square miles. It extends from northern Iowa, in a southwesterly direction, thru central Texas to the Rio Grande. This includes the coal in Texas, Arkansas, Oklahoma, Kansas, Nebraska, Missouri and Iowa. All kinds of bituminous coal are found in this field. However, the most of it is of the dry, non-coking variety. Some coking coals are found in Oklahoma, some block coal in Iowa and some cannel coal is found in Missouri. In 1880 this field produced 3,212,787 tons of coal; in 1889 it produced 10,036,356 tons; in 1902 it produced 20,727,495 tons.

The Rocky Mountain coal field contains more than one hundred thousand square miles. This includes the coal in Colorado, Idaho, Montana, Nevada, North Dakota, Utah, Wyoming and New Mexico. In late years this region has been producing much coal, but it is to the future for these fields to be developed. In 1902 this field produced sixteen million tons.

The Pacific Coast field takes in the states of California, Oregon and Washington. The coal in these regions is not very good. It is all of the Tertiary age and is lignitic in character. Washington produces some bituminous coal and some coking coal. It has not been long since the first coal was mined in these states. Washington bids fair to be a great coal-producing state.

Very little coal is shipped out of our country, and very little is shipped in. But the freight business on the railroads and steam lines is enormous in our own country. Vast amounts of coal are shipped from Pittsburg to all parts of the United States. One railroad company has fifty

thousand coal cars and one thousand locomotives used for this purpose alone. Thousands of barges are used on the Ohio River alone for carrying the coal to Cincinnati, Louisville and the cities down the Mississippi River. Sometimes the river is almost filled with barges. Many thousands of tons of coal are shipped down this river every year. Ledges of coal crop out along the Monongahela River, and it is easy to work the mines at these places and thus bring the coal to the water's edge, where it can be dumped into the barges. This fact makes the coal much cheaper along the water-course.

Much of the coal from the Alleghany regions finds its way to market on the waters of the Great Lakes. Many of the cities on the lakes are supplied from this source. However, much of the coal from the northern part of the Illinois fields is shipped to Chicago and from there to other lake ports. Coal from the Illinois and Indiana fields is shipped in every direction by rail. This is one of the chief industries of the railroads, hauling coal. Often from twenty-five to fifty cars of coal are hauled with one train. So much of this finds its way to the plains of the West.

There are more than a million people kept busy handling the coal. Many cities and towns are kept up by the industry of mining alone. The coal must be taken from the mine to the car or barge, and then it must be taken from the car or barge to the place where it is consumed. Almost every home is interested in the coal trade, for there are but few people but use coal.

Pennsylvania produces more coal than any other state in the Union. In fact, she produces about half of all the coal mined in the United States. In 1880 she produced 18,000,000 short tons; in 1889 she produced 36,000,000 short tons; in 1902 she produced 98,000,000 tons of bituminous coal. To-day the production is much greater. So we can see that more and more coal is being taken from the mines each year.

Illinois ranks second in the production of coal. She produces about ten per cent. of all the coal mined in the United States. Three-fourths of the state is underlaid with coal, or about forty-three thousand square miles. This coal area is the largest for any state in the Union. Coal is found in fifty-four different counties. The output of the coal in Illinois is more than forty millions of tons each year. The value of the coal at the mine is more than that number of dollars. In 1880 Illinois produced only six million tons.

West Virginia ranks third in the production of coal, and by some it is now given as second. As the fields in the central part of the state develop more and more coal is produced. Nearly the entire state is included in the coal-bearing regions. There are twenty-one workable coal seams in this state. The principal seam is the Pittsburg bed, the same which underlies a portion of southwest Ohio, southwest Pennsylvania and Maryland. This vein in the northern part of the state is from fourteen to sixteen feet thick, and is exceptionally free from impurities. The very best grades of coking, gas, steam and domestic coals are found here. There are four or more railroad systems developing the coal industry in this state, crossing the state from east to west. They are the Baltimore & Ohio, Chesapeake & Ohio, Norfolk & Western and the Coal and Coke Railroad. The railroads own a great deal of this coal region. Almost all the coal is shipped out of the state or used by the railroads which are transporting it.



From the eastern parts it is shipped to the seaports of Baltimore, Norfolk and Newport News. From these ports it is shipped to other seaports or to foreign countries. However, little goes to foreign countries. From the western counties it is taken by the railroads and rivers to the South and Gulf points.

It is estimated that there are 2,200,000,000,000 short tons of coal yet to dig. If this great amount of coal were in one block it would be seven and one-half miles high, seven and one-half miles long and seven and one-half miles wide. During the last ten years we have consumed about three billions of tons of coal. During the ten previous years we did not consume half that much. At the present rate of consumption our coal will last four thousand years. But if we reckon the rapid increase in consumption it will only last one hundred years. Mr. Campbell estimates that our coal will be exhausted in two hundred years.

In 1905 there were consumed 384,598,643 short tons of coal. This coal was valued at \$476,756,936. The valuation was one-fourth more than the value of the iron produced, and more than three times as much as the gold and silver. The United States produces more coal than any other country in the world. She produces a third more than Great Britain and twice as much as Germany.

There has been much carelessness in the mining of the coal. Only the best is being taken in many mines. The same carelessness is found in the mines as was found in the first cutting of the timber; only the best trees were taken and then with much waste. It is true of the coal. But we cannot go back and get what is left so well in the mines. It was this careless mining that caused President Roosevelt to withdraw temporarily the privilege of making entries of the coal land belonging to the government. At this time the government had control over about thirty-three thousand square miles of coal land; that is, which has the coal deposit. With the advanced demands for coal it is necessary for the government to take the lead in this matter. In later years greater care is being taken to mine the coal in a more economical way and to save all the coal.

Our country is growing so rapidly, and we are making such strides in the development of the natural resources, that we are, year by year, using much more coal than in previous years. The history of the consumption of coal for the last fifty years shows that almost every five years we use twice the amount of coal. At the present advance we shall in 1910 use twice the amount of coal that we used in 1900. There seems to be no end to our coal deposit, but we thought the same way about the timber, fifty years ago.

There are to-day more than six thousand mines in operation. This does not include local mines and small banks worked to supply local consumption. There are over six hundred thousand men employed in the coal mines in the United States. This does not include the men employed in the transportation of the coal. These men do not work all the time. The average is about two hundred days in the year. In 1902 the total number of shares of common and preferred stock issued by all coal-mining companies was 20,290,479. The par value of this stock was \$568,906,676. There has been great increase since that time.

When we think of the number of men and the amount of money invested in the mines of the

United States, we can understand what it means to the country when the mines close down and these men are thrown out of employment; not only these men, but other men who are engaged with industries depending on the coal mines for supplies. They, too, must close down.

The coal industry of the United States wields a mighty influence on the prosperity of the country.

## Education in Paraguay

Consul Edward J. Norton, in the following report from Asuncion, describes the public school and college system of Paraguay:

The primary schools of Paraguay are under the direction of the national board of education. In 1907, at the close of the scholastic year, there were 383 primary schools in the Republic, divided into four grades. During the year 698 teachers attended to the instruction of 39,749 pupils. The number of pupils in the primary schools during the past year shows the surprising increase of 10,000 over the year 1906.

The government maintains five colleges throughout the Republic, corresponding in grade to the high schools of the United States.

The Normal Training School for teachers is a well-directed institution. The faculty numbers 58 professors, and during the past year was attended by 119 candidates.

The National University at Asuncion was founded in 1890. This and the National colleges are directed by the superior board of education, composed of seven members, who serve for four years. The university is well equipped with laboratories and scientific instruments of the most modern type. The library attached to the university consists of 2,500 well-chosen volumes, and, in addition, the students have the privileges of the National Library of the Republic, founded in 1871, with over 6,000 volumes.

The National College of Agriculture and experimental farm are located a short distance from Asuncion.

Four large private schools are conducted in Asuncion, two of them under the direction of the Sisters of Charity.

Through scholarship funds the Paraguayan Government maintains about twenty young men in Europe and the United States. These young men, upon concluding their studies, are under an agreement to return to Paraguay and assist in the spread of education. Among these special students are civil and mechanical engineers, electric and hydraulic engineers, electricians, chemists, and veterinary surgeons, and those taking courses in agricultural science, arts and manufactures, and commerce. The Government is giving special attention to practical science, and has with keen foresight selected these specialties which are to-day and will be in the future necessary for the development and progress of the country.

The appropriations made in 1907 for the department of justice and public instruction exceeded \$500,000. Paraguay is a small, isolated, and thinly settled country. Its present system of public education has been built up under great disadvantages and at great sacrifices in less than forty years, and the country deserves much credit for its progress in this line. Plans are proposed for increasing and developing the scope of educational work, while the people are interested in their schools.



## The Arithmetic Class

By L. V. ARNOLD, New York

### Percentage

The subject of percentage allows the teacher unlimited opportunities for the display of originality and ingenuity. The various cases are all practical and appeal to the pupil as something which must sooner or later, in some way, become a part of his life.

As the work pertains to business, it should be taught from a business man's standpoint. Here is where so many old and young teachers fail. They hold to the worn and rutted methods of their predecessors, instead of adopting modern methods, and keeping pace with business aggressiveness. It is this lack of foresight on the part of the instructors that impels employers to say that our schools do not turn out scholars into business.

When taking up the various cases the pupil should for the time being become a part of that business and study the subject from that basis. If the two requisites for success, viz., interest and ambition, are not found in the pupil, they must be inculcated by a wise and alert teacher. These, plus the personal ability of the pupil, focussed on a certain line of business, both inside and outside the classroom, will rapidly develop and mature the pupil. The advantage of such teaching is easily perceived; it develops the mental capacities in a manner no other subject is able to, it matures the intellect, it enlarges the ideas, and opens in a small way the doors of the business world.

The first lessons in percentage should be most carefully prepared by the teacher. The early lessons make success or its opposite. All existing traditions must be broken down. Many pupils are led to believe thru home training that arithmetic is hard, because "Ma never could see thru arithmetic," or "Pa was always slow at numbers." There is nothing hereditary about mathematics. Many pupils are very slow in the lower grades, but develop rapidly in the upper.

The number idea requires time for the pupil to grasp. The instructor's plans must be definite, ideals high, and nothing less than the realization of those ideals should be satisfactory. A broad, strong, stable foundation must be built before the superstructure can be reared. The principles must be deftly anchored and understandingly secured in the pupil's mind.

Material for application should be used in abundance, which appeals to the child and in which he is vitally interested. There is an abundance of such material. The various definitions and cases should be taught thoroly and fixed with an abundance of mental and oral analysis, before any work is attempted with paper. This side of the work cannot receive too great attention. The ability to grasp results quickly is a great asset.

There is little to be taught in any case of percentage which cannot be taught well with oral work only. Both the fractional and decimal methods have many adherents, each with a bulk of evidence in favor of his method. However, the former finds the greatest favor because it furnishes a short cut, is more readily understood, more rationally explained, and business and industrial enterprises favor it. After a case has been developed with a class and given over into their hands, two or three different methods will doubtless be thought out for the solution of the problem.

Here is where tact and ability in the teacher is of vital importance. The sifting of methods to secure the shortest, clearest and most concise must be done without destroying the spontaneity of the pupils or slighting even the least possible method. Individuality should be fostered; it is the crowning glory of a recitation, it encourages the class as well as enlarges their horizon. Providing the work is clear, concise, and the analysis correct, a pupil should be allowed his own method.

On the analysis of problems might be written a chapter. The keynote is sounded, however, when DEFINITENESS and ACCURACY are spoken. Those two terms should be heralded from the desk and housetop. The mottoes, "BE DEFINITE" and "BE ACCURATE," should form a part of every pupil's life. Definiteness is necessary in study and recitation, and an absolute necessity in analysis.

An accurate, well-worded statement necessitates a clear understanding of the meaning of business terms and phrases, and a correct interpretation of the problem. If formulæ are learned or form part of the analysis, they detract from the interest and animation of the work, and if separated from the analytical conception they have a negative value.

After the principles are thoroly understood, the review must be persistent, tho judicious. A review method, valuable but not usually tried, is that of problem writing by the pupil and the analysis of the same. It tests a pupil in theory and practice to formulate and solve a problem involving certain given conditions.

Another good review method, but better for all work, is to allow the pupil but one large sheet of paper, and insist that all work done with pen or pencil shall appear upon the given sheet, allowing no erasures. In most cases the result will be a revelation to the teacher.

That the teacher may not be too much disappointed by the latter method, will you allow me to picture a pupil at work? Please keep in mind the fact that board work is merely a flattered reflection of seat work. A pupil is assigned work at the board. He selects his position and prepares his chalk and eraser and begins to work. First writing a number in one position, then erasing that number, he starts to write the same number in a slightly different position, but erases before the number is fully written. He then rewrites the quantity correctly. This erasing and rewriting is repeated until the answer is finally written. This picture is a reflection of the seat work and thinking power of the pupil.

Perhaps that boy requires physical exercise and seeks to satisfy the desire by the use of the eraser, and a dozen other perhapses may be given, but no matter why he does it, for humanity's sake stop it, you who are guilty of allowing pupils to loiter in this way.

In this chapter we have placed much responsibility upon the teacher. That is where much should be placed, yet upon the pupil rests the responsibility of accuracy in mechanical work. Accuracy in mechanical work should precede corrections of faulty reasoning. Then in the end, the percentage teacher must make the business applications and perfect the faulty work in fundamental operations.

# The World's Commercial Products

## How and Whence They Are Derived

### Precious Stones

#### Amethyst

Amethyst is a variety of quartz. It differs from common quartz in being of a beautiful violet blue color. It is used for seals, rings, etc. Owing to its abundance it is cheaper than most other gems. The finest specimens are obtained from India, Ceylon, and Brazil; but the amethyst is common in Europe, especially in many parts of Scotland. A variety of sapphire, of a purple color, is known as "oriental amethyst."

#### Aquamarine

Aquamarine is a name sometimes given to the beryl, on account of its sea-green color. It has almost the same chemical combination as the emerald, but its commercial value is considerably less. The best stones are obtained from Ceylon, but good ones are also found in Brazil and Siberia.

#### Beryl

This is a stone of a deep brown color, or yellow with a reddish tint. It is closely allied to the emerald, but is not nearly so valuable, the difference consisting in the absence of the rich green color so characteristic of the emerald. The finer varieties of the beryl, which are transparent and beautiful in color, are known as aquamarine. The stone is found in various parts of Europe and occurs chiefly in veins that traverse granite or gneiss, or is embedded in granite.

#### Emerald

The emerald is a highly valued precious stone. It is a variety of the beryl, differing from it only in brilliancy of color. The color is a velvety green, generally supposed to be due to the presence of oxide of chromium, tho it is not accurately known to what it is ascribable. The finest specimens have been obtained from Colombia and Venezuela, while inferior ones are found in various parts of Europe. When taken from the mine the emerald is soft, but it becomes hard by exposure to the air for a few days. Emerald copper is a beautiful and rare emerald-green mineral, found in the Ural mountains.

#### Jet

Jet is a species of pit coal resembling cannel coal, of a deep brown or velvety black color. Its structure, chemical composition, and origin have not yet been fully investigated. The largest supplies are obtained in England, where some 40,000 or 50,000 pounds are annually worked in making ornaments and mourning jewelry, the value of which exceeds \$500,000. In other parts of the world jet is found in small, thin, detached layers in bituminous shales, principally in Bohemia, the Baltic provinces, and Spain. In Spain the center of the jet industry is Oviedo. The substance is valued as being light, capable of being easily worked, and of taking a high polish. It is, however, somewhat brittle. Imitations of jet ornaments are made of hardened india-rubber called vulcanite or ebonite, and also of a species of glass.

#### Lapis Lazuli

This is a mineral of beautiful blue color, much employed in ornamental and mosaic work and for church ornamentation, especially altars. When powdered it constitutes the beautiful color known as ultramarine. The cost, however, of obtaining

ultramarine from the mineral is so great that the color is now prepared artificially. The finest specimens of lapis lazuli come from Bokhara.

#### Pearl

The pearl is a substance formed by several shell-bearing molluscs, which are provided with a secretion with which they line their shells. The secretion is laid in thin, semi-transparent films, and gives rise, by reason of the arrangement, to a beautiful iridescence. The pearls of commerce, which consist of rounded secretions of a substance called nacre, are the result of accident. The nucleus of the pearl is a grain of sand or other particle of solid matter which becomes coated over with the nacreous secretion. The principal source from which pearls are obtained is the pearl oyster. The chief fisheries are off Ceylon, but others exist in the Persian Gulf, the West Indies, and Australia. Pearls are of various colors, white, black, and pink, and their value depends upon their size and purity. Excellent imitations are manufactured for necklaces and decorative purposes, the French being very clever in this peculiar industry.

### Miscellaneous

#### Angora

The angora goat received its name from the capital of a province of Asia Minor. These goats have long silky curling hair, of which mohair is the principal. In Turkey the finest garments are made of Angora wool. Elsewhere it is chiefly used for trimmings, braids and shawls. In recent years a species of Angora goat has been bred in the United States, Cape Colony, and Victoria (Australia) for the sake of the wool. The annual value of the wool obtained from Turkey is about \$3,000,000; from all parts about \$5,000,000.

#### French Vines Grafted on American Roots

Consul John C. Covert, of Lyon, furnishes this very interesting bit of information relative to the grafting of French vines on American roots in France:

Men who make the great brands of wine inform me that nearly all the vines of France and other wine-growing countries of Europe are grafted on American roots. It is the only possible protection from phylloxera. As soon as a vine shows signs of decay it is dug up, an American root is planted in its place, and what remains of the old vine is grafted upon it.

The director of the agricultural school at Ecully, near Lyons, says that when the parasite eats into the American vine the incision made is at once filled with sap and no damage results. In the European vine the root invariably rots after the phylloxera attacks it.

By crossing the American with the French vines a hybrid has been obtained which is well adapted to all kinds of grape-growing soil in France. An important part of the business of some wine growers in France consists in producing these hybrid plants for the market, while the production of plants for grafting has grown to be a special industry in France, 220,000 acres of vines being replanted in one year. Not less than 12,000 to 15,000 acres of land are devoted to the raising of replanted American or hybrid roots of these vines.



## Traffic Routes

### New York to Constantinople

Special Agent Julien L. Brodé writes from Constantinople as follows concerning the establishment of direct communication, thru the Hellenique Trans-Atlantic Steam Navigation Company, between New York and that city, and the commercial results which are expected:

The annual imports into Constantinople amount to \$142,000,000, but the share of the United States therein will hardly average \$3,000,000, or less than 2¼ per cent. The insignificant share of the United States in this import trade is attributed mainly to the lack of direct steamship communication between Constantinople and American ports. The importers here complain bitterly of this fact. They state that in many cases they prefer American goods, and the prices are satisfactory, but on account of the too frequent delays en route, and the almost invariably damaged state in which the goods arrive, they have been placing with European firms orders which they would have been glad to give to American firms had there been direct steamship communication. American goods that have been bought here have been coming trans-shipped via London, Liverpool, Marseilles, Genoa, Naples, Trieste, or Piræus. The immediate connection at those ports with boats for Constantinople is uncertain, and the freight is liable to lie on the docks a number of days before being loaded into a boat for Constantinople.

One shipment took three months to reach Constantinople from New York. This is, of course, unusual, but the importer said he had been turned against American trade ever since, because he feared such a delay might be repeated. Almost every importer the writer visited produced a list of unsettled claims for loss of weight, damage, etc., on goods received from the United States. One firm received a letter from a New York house advising him that the insurance company would only allow 65 per cent. of his claim for loss in weight; for the remainder he must file claim against the steamship company. Another merchant received a shipment of cotton-seed oil from the United States, and eleven of the barrels arrived entirely empty.

American flour is very popular, as the grades run uniform, but the importers say it is almost invariably damaged en route, many bags being re-sacked, thus covering up the brands, which causes general complaint and dissatisfaction from the retailers and the consumers, who think some other flour is being substituted.

In the endeavor to remedy this state of affairs, the writer went to Athens, in hope of getting one of the Greek lines which ply between New York, Greece, and Smyrna to come also to Constantinople. The Hellenique Steam Navigation Company agreed to make the experiment and give the proposition a fair trial. This company has two boats, the *Athenai*, 17,000 tons, and the *Themistocles*, 15,000 tons. These are both new boats, the former being now on its second trip, equipped with all modern improvements for freight and passenger service. The managing director, Mr. Angelo Anastassiou, has manifested much interest in the new undertaking. He cabled New York

instructing the *Athenai*, which was then at that port, to take direct freight for Constantinople.

This undertaking on the part of the Hellenique Trans-Atlantic Steam Navigation Company is one that involves considerable risk, and the company deserves the support and encouragement of American shippers. American commerce is scarcely represented in this market, and now that the main drawback has been removed we can look forward to an increasing trade for our goods, not only at Constantinople, but in the Bulgarian, Roumanian, Russian, and Persian markets. These countries offer excellent trade opportunities.

The number of direct steamship lines running from the several countries to Constantinople are as follows: From England, 6; Austria, 2; Germany, 2; Italy, 4; France, 4; Russia, 7; Belgium, 5; Roumania, 6; Bulgaria, 10.

Most of the lines coming to Constantinople go to the Black Sea ports, where there is a rapidly growing trade. It is now the intention of the Hellenique Trans-Atlantic Steam Navigation Company to extend their line to Odessa as soon as they have sufficient boats to do so. When this is done American commerce in those markets will probably increase rapidly.

The Hellenique Trans-Atlantic Steam Navigation Company has run up against the strongest kind of competition. The lines that come to Constantinople from European ports are all heavily subsidized by their governments, whereas the Greek line gets no subsidy and is owned by individuals in Greece. The agents for the other lines at Constantinople are already in opposition to the Greek line and state they intend to cut rates.

### From Canada to Cuba

Writing from St. John, Consul M. K. Moorhead says that it has been announced by the Munson Steamship Company, of Boston, that on October 1 a steamship will sail from the former New Brunswick port direct for Habana, Cuba, and monthly thereafter.

The New Brunswick produce dealers hope to build up a considerable trade in potatoes, hay, and other products. In 1908 the potato crop of New Brunswick was 7,836,374 bushels from 46,700 acres, against 5,182,503 bushels from 45,029 acres in 1907. It is estimated that the province also produces 600,000 tons of hay yearly. During the fiscal year ended March 31, 1908, the exports of potatoes thru St. John were \$3,251 and of hay \$143,565.

The Pennsylvania Railroad has announced that it will run a new train between New York and St. Louis, covering the distance in twenty-four hours. This is a new record in passenger transportation.

After having waited for a week for favorable weather conditions for his flight up the Hudson River during the Hudson-Fulton celebration, Wilbur Wright "made good" by giving several exhibitions of the workings of his wonderful aeroplane.



# United States Government

By ISAAC PRICE, New York

## The Legislative Department Congress

For the second time this year Congress, as the national legislature is called, will assemble in the Capitol at Washington. The meeting will be automatic, by Constitutional requirement.

Congress shall assemble at least once in every year, and such meeting shall be on the first Monday in December, unless they shall by law appoint a different day. (Art 1, Sec. 4, Cl. 2.)

"The House of Representatives shall be composed of members chosen every second year by the people of the several States. . . . (Art. I, Sec. 2, Cl. 1)."

"The Senate of the United States shall be composed of two Senators from each State, chosen by the legislature thereof, for six years; and each Senator shall have one vote. (Art. 1, Sec. 3, Cl. 1)."

The previous occasion of the meeting of Congress was on March 15, when President Taft called Congress in extraordinary or special session to revise the tariff and consider such other matters brought before them, under the authority given him:

He (the President) may convene both Houses, or either of them. (Art. 2, Sec. 3.)

### COMPOSITION

The Constitution begins with the following sections:

All legislative powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives. (Art. 1, Sec. 1.)

In the decision of these important sections was settled one of the bitterest and most acrimonious debates in connection with the adoption of the Constitution in 1787, and which at one time threatened to negative the work of the Convention.

Gladstone, in his excessive admiration for the Constitution, exclaimed that "It is the greatest work ever struck off at any one time by the mind and purpose of man." This means that the plan and system of government as set forth in the Constitution is wholly original and the work of only the members of the convention. This view is erroneous and misleading. On the other hand, the view of Sir Henry Main, that the "Constitution of the United States is a modified version of the English Constitution, . . . which was in existence between 1760 and 1787," is also partially wrong. A composite of the two views above expressed will be the more acceptable in the light of the study of and research as to the origin of our Constitution. No other section of the Constitution illustrates to better advantage the evolutionary nature of our system of federal government. A consideration of this document also shows the kind of men serving in the Convention of 1787. Men of deep learning and wide knowledge of political institutions of ancient times, as well as their own period, they were able to forge this masterpiece of constitutional and political fabric.

We are all well acquainted with the causes leading to and the settlement of the thirteen colonies. We know the motives back of these settlements. The settlers were in the great majority Englishmen, born and bred, imbued with the ideals of English freedom, with the ideals of English social and political institutions. We have seen how they transplanted these institutions to their new homes,

but we see in all their political work a modification of the native institutions to suit their needs in the Western hemisphere. Wherever changes were found necessary they were ultimately made; so that while the fundamentals were of English birth the changes and variations gave it a distinctly local coloring.

A few words about the Parliament, the British legislature, will help us to understand more readily the origin of the bicameral system of the legislature Congress. Parliament is divided into two branches, the House of Lords and the House of Commons. The House of Lords is composed of men theoretically superior to the members of the lower house by birth and training, and entitled to their seats by reason of their descent from the nobility or by special creation of the sovereign, the King. These men served for life, with the exception of the Scottish peers, who were members for the session only. They were dignified and conservative in their action, and removed from popular clamor, and could disregard sudden radical demands urged by popular whims and fancies.

Opposed to them we have the lower house, the House of Commons, composed of members depending for their positions upon the will of the people, expressed at the elections which were held rather frequently, the term of office of seven years rarely being completed, and necessarily making it the servant of the people and acting in full co-ordination with the wishes of the masses. The House of Commons was, therefore, more hasty and more radical in its actions.

Moreover, the members were readily led by demagogues and popular leaders, and often merely the tools of the King or his ministers. From the time of the organization of the lower house in 1265, by Simon de Montfort, until the time of the Revolutionary War, the Commons was slowly but surely becoming the more powerful of the two Houses, until it finally seized the control of the government thru its ability to control the purse-strings of the government. It thus became the leader in governmental matters.

The above will help us to appreciate more readily the causes of the establishment of the bicameral legislative system thruout all the colonies. A few had organized with one house, but the benefits derived from the double nature of the law-making body easily asserted themselves, and they, too, changed their systems. When the convention undertook the formation of the new national government they had two models before them: the systems in vogue in all the States and the model of Congress under the Confederation.

Two plans were proposed. The Virginia plan provided for a legislature of two houses, the members of the lower house to be elected directly by the people, while the upper house was to comprise members elected by the lower house from among the names suggested by the legislatures of the respective States. Representation in both houses was to be in proportion to the population. The various questions were to be decided by a majority of the votes cast, each vote counting as one, and not to be a part of the unit vote of the State, the practice in the Congress of the Confederation.

This plan was at once opposed by the smaller States, who saw that there would be an undue preponderance of influence wielded by the larger

States. Under the leadership of New Jersey, the smaller States urged the continuance of the plan of the Congress of the Confederacy, intending to preserve the full powers and the influence of each State, and making the small State the equal of the large State in the matter of legislative affairs. Bitter and heated debate followed, until the better sense of the convention prevailed in the adoption of the Connecticut Compromise.

Connecticut had two legislative houses, but the members of these were elected in different ways. The members in the lower house were elected directly by the people, while the members of the upper house were elected by districts, and not by the people in the districts; the people of the districts voting merely as parts of the district whole, each district being entitled to a member in the upper house, regardless of size or population.

A reminder of this system is still seen in the election in the State of Rhode Island. It was accordingly decided that the members of the lower House of Representatives shall be elected directly by the people in proportion to the population,—the plan favoring the larger States,—while the upper house, or the Senate was to be composed of members elected to represent the States, without any consideration of the size, population or importance of the State, the plan maintaining the equal influence of the small with the large State.

It is worth while in this connection to note the influence wielded in recent Senates by the smaller States, like Connecticut, Rhode Island, Massachusetts and Iowa, while the larger States of New York, Pennsylvania, the Dakotas and Nebraska have been relatively unimportant.

### The Stars and Stripes

Public sentiment and individual associations recalled by the flag readily unite in expressions of esteem for the Stars and Stripes; and the question of acknowledged rank, and respect for the same, due our national emblem, could occasionally be brought to the attention of the public schools, by the teachers, with profit to both.

Let it be remembered, as a recognized fact, that the flag in the service ranks everything. It is the commander-in-chief of the armies and navies of the United States. If the colors are being borne within saluting distance of a sentinel walking post, the soldier would pay no heed to him. The colors are first always. It is the duty of the sentry on post No. 1 in every garrison to watch the flag that floats over the parade ground. If by any chance its folds become entangled in the halyards and does not fly free, the sentinel calls the corporal of the ground, whose duty it is to release the flag. When a color line is established in camp no man must cross it without saluting the flag, and a sentinel is posted to see that the order is obeyed.

The service reveres the flag. The men are taught that it represents everything that there is in duty, loyalty, and patriotism. The colors are the first thought in battle, as they are the first thought in peace. Every day in the year is "flag day" in the army and navy.

Arlington, New Jersey.

ALFRED KING.

Denver has become widely known as "The City of Lights" because of the beautiful and artistic manner in which the main streets are lighted with electricity. The "light spirit" has taken hold of the merchant, and there is keen rivalry among them to create the most artistic display signs. The result is that the city is a "blaze of lights" every night in the year.

### The Hudson Fulton Centenary

The Hudson-Fulton celebration commemorated the discovery of the Hudson River by Henry Hudson and the first ascent of it by a steamboat built by Robert Fulton. It was attended by visitors from every State in the Union and by many persons from abroad.

On October 1 there was a great naval parade, with ceremonies along the line. Eighty warships took part, including battleships from Great Britain, Germany, France, Italy, the Netherlands, the South American republics and other countries. In addition there was a fleet of sea-going and coast-wise merchant vessels, steamboats, ferry-boats, steam yachts, motorboats, tugs and lighters, the largest ever assembled on this side of the Atlantic. The fleet escorted the *Half Moon* and the *Clermont* up the river.

The historic parade in New York was held on September 28, participated in by people of all nationalities. The procession was composed of floats representing the principal events in the history of the aboriginal, the Dutch, the English, the Revolutionary and the American period of our history.

The feature of September 30 was the military parade. This parade included fully 25,000 men of the United States army and navy, the national guard, the naval militia, various veteran organizations and landing parties from the foreign warships.

At the Metropolitan Museum of Art, the American Museum of Natural History, the Hispanic Museum, the American Numismatic Society, the New York Public Library, the New York Genealogical and Biographical Society, Webb's School for Shipbuilders, the New York Yacht Club, and other kindred institutions thruout the State, were exhibits of paintings, prints, books, models, relics and the like of remarkable historical value. At the American Museum of Natural History and the Metropolitan Museum of Art in particular these exhibitions were very notable. As many as thirty Rembrandts were on view thru the courtesy of many private collectors. The exhibitions will remain open until November 15.

October 2 was set apart as a general carnival day. In all the cities along the Hudson exercises were arranged with an especial view to the participation of the children, and on the Stony Point battlefield the Daughters of the Revolution unveiled their memorial arch.

Saturday evening was the climax of the whole celebration so far as New York City was concerned. The commission arranged a great carnival parade, with moving allegorical tableaux, participated in by the German societies. The illumination and pyrotechnic display were on a scale never attempted in this country before. Every municipal building and thousands of private buildings, every great bridge spanning the East River, every monument and many of the thoroughfares were illuminated with electric lights. There were 14,000 of these on the Queensboro Bridge and nearly as many on each of the other great bridges.

On Riverside Drive there were two batteries of searchlights, one with twelve searchlights, aggregating 1,700,000 candle-power and another of four searchlights aggregating 40,000 candle-power.

Saturday, October 2d, was "Children's Day." Thousands of school children marched in the parade, and danced folk dances in the various parks. They were dressed as Colonial soldiers and dames, Dutch burgomasters and milkmaids, Indian braves and squaws, besides the costumes of various other nations whose dances they exhibited.



## Present Day History and Geography

It is announced that Charles M. Pratt, president of the Pratt Institute, of Brooklyn, and secretary of the Standard Oil Company, with his sister, Mrs. E. B. Dane, will give to the school an endowment fund of \$1,700,000.

To conform with the recent increase of letter registration from 8 to 10 cents, the Post-office Department has decided to issue a 12-cent stamp, so that on ordinary letters one stamp may pay postage and registration.

Edwin Ginn, the Boston publisher, has arranged to give \$50,000 a year, and at his death a large endowment, for the establishment of an international school of peace.

Mrs. Ruth Bryan Leavitt, daughter of William J. Bryan, has announced her candidacy for member of Congress from the First Colorado District, on the Democratic ticket. It is said that the Republicans plan to nominate a woman in the same district.

The report comes from Virginia that the crop of peanuts is this year almost a third less than usual. The chestnut crop also is smaller than usual, on account of a pest which is killing the trees.

More than 21,000 schoolchildren greeted the president at Portland, Ore., and the exhibition given by them was a remarkable one. About 4,000 boys and girls were placed in a grandstand and when Mr. Taft appeared they all knelt down behind the seats except 200 girls in white, who were so placed that they spelt the name "TAFT" in huge letters. Other children dressed in red and blue rose up and all were so arranged that the whole mass looked like a great flag waving in the breeze.

The Pennsylvania Railroad is planning to set out this season more than 1,000,000 trees. This will make a total of 3,430,000 trees which have been planted in the last three years to provide for some of the company's future requirements in timber and cross-ties. Of the trees, 893,000 are red oak, 40,000 Scotch pine, 20,000 locust, 14,000 hardy catalpa, 14,000 pin oak, 5,000 European larch, 30,000 chestnut, 3,000 yellow poplar, 2,000 black walnut and 1,000 white pine.

The title to the vast coal lands in Alaska remains unchanged, as a result of a decision of President Taft in favor of Secretary Ballinger and against Land Agent Glavis. A new and thorough investigation of the whole question of the Cunningham syndicate is to be made at once. The value of these coal lands is estimated at from \$75,000,000 to \$1,000,000,000.

Farmer Wilson, upon his return to Washington from a month's vacation on his Iowa farm, said: "The average laborer is living to-day better than did Queen Elizabeth in her time. Take the meat bills of the laborers in Washington to-day. You will find that they eat meat three times a day—most of them—and, what is more, they want the best cuts—they are not contented with any other kind. They can afford them. As a result the price of meat is away up. While the farmers are producing more beef every year, they are

not producing enough to meet the increase in population. I do not look for the prices to decrease materially soon."

Dr. Abbot Lawrence Lowell was inaugurated president of Harvard University on October 6. The ceremonies were held on a platform in the yard in front of University Hall. On the same day, in Stratford-on-Avon, England, the old Harvard house, birthplace of John Harvard, the founder of the university bearing his name, was formally dedicated as the property of the university. The old house is the gift of Edward Morris, of Chicago.

To the office of Treasurer of the United States, vacated by Charles H. Treat's resignation, President Taft has appointed an old Yale friend and noted football player, Lee McClung, treasurer of Yale University. Mr. McClung's home is at Knoxville, Tenn. He was captain of the 1901-1902 football team at Yale and is a member of Skull and Bones, the secret society to which the President belonged when at college.

A start has been made in the establishment of a new kind of training school for "bad" boys, authority for which was given by the New York State Legislature five years ago, but which was delayed by the failure of commissioners to agree upon a site. The plan is to place boys in family groups in cottages, with a good man and wife to look after each group. Each house is to have a small farm for the boys to work and play on. A central school will be operated, but only three hours a day attendance will be required of the boys.

Peru and Bolivia have settled their boundary dispute. A decision reached by the President of Argentina as arbitrator forms the basis of the agreement. Bolivia recognizes this decision; and Peru surrenders to Bolivia a small area of about 6,500 square kilometers. This bit of territory is important to Bolivia, because it was discovered and colonized by Bolivians, who have established industries there.

At Rome, Ga., headquarters have been established for the Order of the True Americans, the object of which is to settle the race problem by the deportation of all negroes. Rev. J. R. Lamb, the founder, proposes to raise funds with which to purchase territory for the proposed colonies and to buy the lands owned by negroes in the country, to bring about the repeal of the fifteenth amendment, and to disfranchise every negro voter in America.

Roy Keator, publisher of a weekly newspaper, has been sentenced to serve six months in the Bridgwell prison, Chicago, on a charge of making false circulation statements to obtain second-class mail rates.

He admitted that in order to get advertising he had represented the circulation of his paper to be 100,000 when, in fact, it had but 1,000 subscribers, and that he had placed many names on his subscription list without authority. The periodical was an agricultural journal which he started in Grand Rapids, Mich., and later had printed in Chicago.



### Halley's Comet

The comet known as Halley's, from Edmund Halley, who discovered its periodicity, is with us this year. It takes about seventy-seven years for the comet to complete its revolution around the sun, and accordingly its last visit to us was in 1837.

A writer in *The Technical World Magazine* for September says of comets in general and Halley's in particular:

So it continued to spread terror century after century, until Edmund Halley started to take away the mystery and incognito and put it in its proper place among the members of the sun's family. He camped, so to say, on the comet's trail and calculated the curve of the orbit, fixing it as a parabola. He took up other comets and analyzed their motions, coming in the course of his labor across one—1607—which had the identical curve, speed, and general elements of the comet of 1682. Halley was astounded. He calculated further back and came across the comet of 1531, where he found the same elements again. He then made the daring step which forever placed his name among the greatest astronomers of modern times—he risked his reputation and predicted the return of the great comet of 1682 for the year 1758. Feeling certain that he would not live until then, he said to the scientists of Europe when making his prediction: "And when it really appears, do not forget that it was an Englishman who made the first prediction of the return of any comet!"

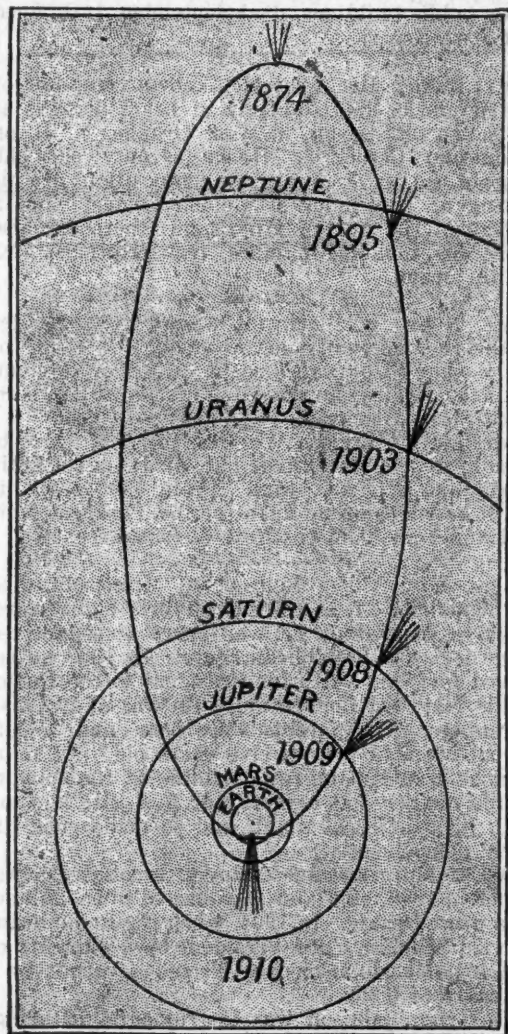


Diagram Showing the Orbit of Halley's Comet.  
From the New York Sun.

Here is what has happened since the comet's last visit:

It crossed the orbit of Saturn in February, 1839, of Uranus in March, 1844, and that of Neptune in December, 1856. Slowly, very slowly, receding still farther and farther, it floated far away into the void beyond the farthest known planet, reaching its aphelion—the greatest distance from the sun—in February, 1873. At this point the comet's speed is very small. Gradually it swings farther around the curve and commences its return journey toward the sun. In April, 1889, it crossed Neptune's orbit on the return trip; it needed thus fully thirty-two and one-third years to cover the small arc lying beyond Neptune's orbit. To race over the opposite, equally large arc near the sun it needs just 725 days. Uranus was passed in March, 1902, and Saturn in February, 1907. The orbit of Jupiter was crossed in April, 1909.

The question most important to the average intelligent reader is naturally: "When can I see it and where?" According to the most accurate calculation, the comet will appear in the big telescopes (or at least on photographs taken with them) in October, 1909, near the constellation Orion. About the beginning of February, 1910, it will perhaps become visible to the naked eye in the constellation Pisces. In March it passes behind the sun. Thereafter it will become brighter and be visible during April and the first week of May, shortly before sunrise. On May 17 it will again pass the sun and from then on to about May 25 will be at its greatest brilliancy and apparent size. Its distance on May 18, being about 11,800,000 miles, or about one-eighth of the distance between sun and earth, will render it a very conspicuous object in the northern hemisphere. Its flight will be swift at this time, as it crosses in six days over the constellations Taurus, Hydra, and Sextans. A few days later it will become fainter and fainter, gradually disappearing from the view of ordinary men; it will continue for a few months longer to be visible in the great telescopes; still a little longer appear as a faint dot upon photographic plates, and finally, about December, 1910, be lost in the vast distances.

### A Notable Rally

Eleven thousand boys, all pledged to an idea, and all filled with enthusiasm for a leader, and with desire to follow in his steps! This was the great sight which one saw in the London Crystal Palace on the afternoon of September 4, says *The Youth's Companion*. It rained in torrents outside where the assembly was to have been held; but the great hall was radiant with light and color, and never served a better purpose than in housing this review.

The story of the gathering is a brief one. When General Baden-Powell came home from the Boer War, he organized a corps which he called "The Boy Scouts." Each boy who joins the troop makes three promises: He will be loyal to God and the King; he will help other people, he will obey the "Scout Law," the most important article of which is that a Scout must try his best to do a good turn, no matter how small, to somebody every day of his life. Other items of the "Law" enforce upon him kindness to animals, and forbid him to beg or coax for money, but encourage him to earn it by honest, useful work.

With these simple principles, and with some wholesome drill, in tactics, in first aid to the injured, and in general "camp craft," the Boy Scouts have flourished wonderfully.

At this first annual "Rally," eleven thousand were present, and thousands of others sent greetings to their "Chief Scout," General Baden-Powell.

The general read to the boys a stirring telegram from the King, and he himself made a still more

stirring speech. He said there were just two kinds of "scouts," workers and shirkers, and any one who heard the boys cheer the sentiment had no doubt to which class those present belonged.

### 1915 Boston Exposition

During the month of November, from the 1st to 27th, inclusive, a "1915" Boston Exposition will be held in the old Art Museum Building, in Copley Square, Boston.

This is to be a presentation of Boston in action; of the city as it is to-day, and as it may be in the future. It is to include exhibits in many interesting forms to show what are the present needs of the city, and how these needs may be met.

The exhibits are to be arranged in four departments, covering the different sides of Boston's life. The exposition not only will be different from anything that has been seen in Boston before; as a whole, it will be different from anything ever before brought together in this country, or, in all probability, abroad. It will show Bostonians what their city is and what they can make it; and it will do this not by an exhibition of figures and statistics, but by photographs, moving pictures working models, plastic designs, and living examples. Practically all the large organizations that are active in making Boston a good place to live in and work in are co-operating.

The Boston School Committee has voted an appropriation to bring up to date the exhibits that already have made it famous in world's fairs, and will have thirty-one cases showing the work of all the different grades of schools from kindergarten to high school, and of all branches of instruction, including industrial training. The industrial education exhibit will include besides a section filled with the work of the special industrial schools, like the Mechanics' Arts High School, illustrations of how children are taught to use their hands and their brains at the same time, right thru the whole system from "primary" to "high" grades, in fact, the industrial side of education will be shown with special completeness.

The Institute of Technology is planning to have exhibits from more than a dozen of its departments. Such things as milk examination and sanitation which have direct bearing on the life of the city will be given special attention, but the whole Technology exhibit will be a "live" one. The Boston Y. M. C. A. will show some of its educational classes and its Co-operative School of Engineering. It is expected that in this industrial school section a number of out-of-town institutions will have a place, notably, the Lowell Textile School, the agricultural schools, and probably several of the manual training schools near Boston.

The Eastern Kindergarten Association is going to make a complete display of kindergarten work, having classes of children at their games and studies every afternoon. There will be a "live" exhibit by the Federated Boys' Clubs; the North Bennet Street Union will move its school of printing, which is one of the best in the country, to the old Art Museum while the Exposition is on; and the Boston Playground Association will show what is being done and what might be done for the young people out of school hours.

An exhibit which has educational features will be that of the Massachusetts Commission for the Blind. This is expected to be especially interesting. Blind workers will practice various occupations, and the methods of training them for their work will be illustrated. The books which blind persons use and the method of reading them, the

systems of teaching that have made Massachusetts famous in this branch of philanthropy and progress, and some of the marvelous results achieved will be put before Bostonians in a way to give a good many of them a new idea of what is going on right in their own community.

The exposition opens on the 1st of November, and continues until the 27th.

### The Hookworm Disease

In an address before 500 doctors, members of the Mississippi Medical Association, Dr. W. C. Stiles, of the Federal Marine Service at Washington, said that 2,000,000 persons in the Southern States were afflicted with "hookworm," the lazy man's disease.

Dr. Stiles called the hookworm the American murderer, and said that in China it caused widespread disturbance of the mental and bodily functions. The disease makes "Jack a dull boy," and teachers in hookworm districts say that if their pupils sit for any length of time they "swell up."

### Deaths of Well-Known People

Charles Follen McKim, designer of the Boston Public Library, the Columbia University Library, the War College at Washington, the Pennsylvania Railroad Station in New York City, and many other public buildings, died September 14th, aged sixty-two years.

Mr. Dudley Buck, the well-known composer of sacred music, died suddenly of heart disease, at the home of his son, in West Orange, N. J., on Wednesday, October 6. He was seventy years old. Some of the best known of his compositions are his setting of Longfellow's "Golden Legend" and a setting of the Forty-sixth Psalm; there are also numerous sonatas, marches, transcriptions, etc., for the organ.

Mr. Henry B. Blackwell, a well-known leader of the woman's suffrage movement and editor of the *Woman's Journal*, died in Boston on September 7th. He is survived by his only daughter, Alice Stone Blackwell.

Mr. Lloyd Garrison Wheeler, the first negro to be admitted to the Illinois bar, died August 28th, at the age of sixty years. From 1903 until his death he was general agent of the Tuskegee Normal and Industrial Institute at Tuskegee, Ala.

Gov. John Albert Johnson, of Minnesota, died on September 21, at the age of forty-eight years. Altho a Democrat, he was three times elected governor of a Republican State. In 1908 he received forty-six votes for President in the Democratic National Convention. He was of Swedish parentage. His parents were poor, and he left school when he was twelve years old. At fourteen he assumed the responsibility of the support of his mother and a family of five. He kept on with his studies at night, and so made good his early deficiencies.

Mr. Johnson became editor of a country newspaper in 1886, and later was elected to the Minnesota State Senate. In 1904, when the Republicans carried Minnesota for President by a plurality of 161,464, Mr. Johnson was elected governor by a plurality of 6,352.

Governor Johnson was instrumental in bringing about important changes in the laws of Minnesota affecting railways, taxation, insurance, and municipal ownership of public utilities.



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## Told At Forty—A Lecture for Boys

(This might be read in connection with the morning exercises.)

BY AN EMPLOYEE.

Things look different—at forty. I know, for I am writing this on my fortieth birthday.

Life isn't any more serious than it ever was—perhaps it is less so. Surely, it is nothing like as much of a problem. Surely, too, it is more comfortable.

You see, I am an employee—one of the millions who get pay envelopes from somebody or somebody else every so often.

I have always been an employee, and suppose I always shall be.

Somehow, there doesn't seem to be enough employing to do for all of us to have a chance at it.

And besides, most of us don't know enough to do employing, yet nine-tenths of us feel that we are superior to the men who pay us, and we criticize their methods and their action.

Not openly—more's the pity. I be-

lieve the average employer would be glad to hear decent criticisms, decently made.

We sneak. We tell the other fellows in the place, and our friends outside, how "slow" and "mean" and so on the boss is.

And we are forever going to quit when we "get a good chance."

But we don't often quit—unless we get "fired"—for a good chance rarely comes to the sneak and the backbiter.

But we don't get promoted or "raised," either—because our think-boxes are so filled with meanness that there isn't room in them for the honest thought that leads to better things.

Or our initiative has become paralyzed thru fear that we are doing too much for the money we get; or atrophied thru plain lack of use.

Often, too, we become obsessed (suppose you look that word up) with a notion of our indispensableness.

Then we're moored to a mud bank, and some stormy day we drift away to nowhere.

When I began to work I didn't see any of these things quite this way—didn't see some of them this way at all.

Of course I wasn't forty then. But I was on the way to it.

So are you, my brother—unless you have reached it or passed it.

I have had three jobs since my twenty-first birthday—four years, seven years and eight years.

Left the first to go to the second, and the second to go to the third. I am still at the third.

To do better each time? No—to do worse, from a money standpoint.

But to apply some of the things I learned in the previous job:

I did get my wages increased occasionally while at the first two jobs.

But I wouldn't have gotten a worthwhile promotion in a thousand years.

Why? Don't ask me—just read over again the first part of this talk.

Eleven years to learn something—not much even then—of my duty, as an employee.

And—I also learned not to lay any great particular stress on my employer's duty to me.

Because he really doesn't owe me any duty—unless my work and conduct are such as to impose an obligation upon him, in which event he'll be glad to "square up."

Is that a new one? It was to me—once. But I'm fixed in it now.

I have said that I am an employee. And yet I have spent the last eight years working for myself.

Just as surely as tho I owned a business.

How? By doing the best I know for my employer, every minute of my working day.

It's easy—when you get into it.

I tumbled to the fact that there is only one fellow in the world who can help me or hinder me.

That fellow is myself.

He hindered me for a good many years.

He's helping me now.

Some folks say I made a wonderful jump to where I am.

They're wrong. I've gone up slowly—very slowly, it has seemed sometimes.

In obedience, however; to the law of business gravitation—the law that inexorably says "up" if you're worth it and down if you're not.

I haven't worried about my job since I got the real hang of things.

Once, when I had a good offer from another city, my employer simply said, "I would like you to stay here."

Not a word about advancing my wages to meet that offer.

Not a word for six months after—for I stayed.

Then—that much, and more.

Some of the other fellows say harsh things about that man.

Just as I said them about former employers.

And they are listless, and uninterested, and jump when the bell rings.

Sometimes they tell me I'm lucky—when there is no such thing as luck.

They have not learned—some of them are 'way past forty, and will never learn.

I'm not a sentimentalist—I believe that "business is business" all around.

I'm happy in my work; my digestion and nerves are good. Life is beautiful, and richly worth living.

I've saved a little money, by the way—maybe I can quit and rest after awhile, if I want to.

Won't that be fine?

Yes, things do look different—at forty.—Selected.



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### Kept His Eyes Open

Other things being equal, the boy who keeps his eyes open and takes note of the things they fall upon is more apt to get ahead in the world than the boy who takes everything for granted. There is probably, therefore, a good place waiting somewhere for the youngster who recently came under the notice of Mr. Beer, the librarian of New Orleans.

Opposite the public library in that city is a drugstore, in the window of which hung for some time one of those "gift clocks" which advertise somebody's medicine with the same letters with which they tell the time. Like many another gift clock, it was a poor timekeeper. Mr. Beer, who was accustomed to note the hour each morning as he passed toward the library, took account of its failing. One morning when he came down to work he was surprised—and pleased—to find a fine new clock (which proved accurate to the minute) hanging in the gift clock's place on the wall.

"I see you have a new clock!" he called to the druggist. "It's a good move."

"It's a boy's fault, tho," said the druggist. "That old clock had to go every little while to be repaired. One morning I was standing here when in walked a boy about twelve years old.

"I've come for your clock," he said. "I'm the clock-mender's boy."

"I didn't send for you," said I.

"No, but your clock did," he said. "I saw it from the street car. It's an hour and a quarter slow. Don't you think that's poor business? People see the clock is wrong, and they think that if you are careless about that you may be about other things; so they wonder if you are that far wrong in everything. Besides, it's a poor ad for that medicine."

"That sounded reasonable to me, and as the clock needed repairs I gave it to him to take to the shop. He brought it back, and it ran all right for four weeks—as long as it ever did. Then it went wrong again. In a day or two in came the boy. 'Now, see here,' he said. 'I don't want to carry that clock back again. I want to sell you a new clock.'

"I don't need one," I said.

"Why, we have had that clock in our shop four times in the last four months. It has cost you one dollar each time. It's a poor clock. It will never be any better. Inside of a year it will cost you at least twelve dollars for repairs."

"We're making a specialty of a big clock for storekeepers just now at ten dollars; that we warrant and take care of for two years. You will make money by throwing this one away and buying it. Besides, it doesn't look well, having an advertising clock in your window. It makes your store look as if you had to use furniture that is donated—as if you didn't make enough to buy things for yourself."

"He chattered along quite a spell about it, and the upshot of it was I let him take me down and show me the new clock. He had the figures all right, and it was a good clock and saving money. So there she is. He thinks I ought to have a new sign made: 'Everything in this shop is as right as this clock.' Wants me to hang it under the timekeeper."

"I want to keep my eye on that boy," said Mr. Beer. "I wish we had a cityful just like him."—*The Youth's Companion.*

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### Notes of New Books

"With Evans to the Pacific" is a little travel story of the voyage recently made by our fleet, from Hampton Roads around the world to San Francisco. Mrs. Margaret J. Codd, the author, has followed the route of the fleet quite closely, telling about the various countries visited, describing conditions of life on shipboard and narrating particularly matters of general interest concerning the principal countries of South America. The book will be an interesting and valuable aid to the study of geography, besides being alive with interest, especially to boys. (A. Flanagan Company, Chicago.)

Timely, as well as interesting and thoroly scientific, is "The Conquest of the Air," by Prof. A. L. Rotch, of Harvard University. The book gives the data concerning the practical navigation of the air and includes a brief discussion of the whole subject. It covers the history of the achievements to date, and discusses the possibilities of the future. (Moffat, Yard and Company, New York.)

"Janet at Odds," by Anna Chapin Ray, is the fifth volume of the "Sidney Books." Several of the favorite characters of the preceding books reappear. Janet is a true, earnest girl. In the present volume the author tells how she conducted a boarding-house for her friends during a summer in Quebec. The story is bright, full of action, and well suited to the tastes of the girl of high-school age. (Little, Brown & Company, Boston. Price, \$1.50.)

Jack Lorimer and his friends stand out as fine examples of all-around American high school boys and girls. In "Jack Lorimer's Holidays" the author, WINN STANDISH, completes the account of the summer's doings of the Millvale boys as begun in "Jack Lorimer's Champions." The boys not only go camping, but they box, wheel, motor, play jokes, plan strange inventions, and systematically seek for health—which itself is happiness. (L. C. Page & Co., Boston. Price, \$1.50.)

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We have the following which should be of especial interest to every teacher at this time of year:

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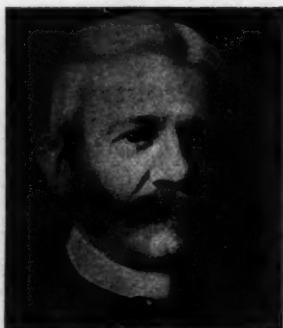
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"German Prose Composition," by Carl W. F. Osthaus, of Indiana University, and Ernest H. Biermann of the same institution, is a graded text-book of German writing for high school and college use. It is based on consecutive prose, and is intended to develop rapidly the student's independence. In the earlier portion the exercises consist of three parts—a short German selection, a set of questions in German based on it, and an English version. As the selections increase in length, the questions are omitted, and in the second part only English material of higher grade is given. The book is supplied with full vocabularies, and is excellently fitted for the use for which it is intended. Price, 65 cents. (American Book Company, New York, publishers.)

"Little People Everywhere" is a new series of illustrated books on child life in all parts of the world, written within the comprehension of children from nine years of age up. The authors, Etta Blaisdell McDonald and Julia Dalrymple, are well-known writers of children's story- and text-books. The four volumes of the series now ready are: "Manuel in Mexico"; "Ume San in Japan"; "Rafael in Italy"; and "Kathleen in Ireland." Eight other volumes are in course of preparation. The distinguishing features of the series, and a most excellent series it is, are the vivid word-pictures of the scenes and life of other lands, and the very evident understanding, on the part of the authors, of what children enjoy. The acquaintance made with life in other lands thru these books will become a part of the readers' very life. Sixty cents a volume. (Little, Brown & Co., Boston.)

The Wentworth Arithmetics represent a distinct standard among American text-books. They have stood the test of time better than any other series in this field. A "Complete Arithmetic" has now appeared which bears the name of George Wentworth and David Eugene Smith. It is intended for grammar-school grades. The keynote of the method—present the reason briefly but clearly, then furnish such an amount of practice that the pupil cannot forget the principle—is that which has made the Wentworth texts the standard for a generation. Theory is reduced to a minimum and practice is abundantly provided in more than six thousand carefully graded problems and examples, all absolutely new. (Ginn & Company, Boston.)

In "A Primary History, Stories of Heroism," by Prof. William H. Mace, of Syracuse University, children have something more than the ordinary school text—they have the rare spirit that puts the glow in the romance, the fire in the story. Thruout boyhood, youth and manhood, navigators, soldiers, statesmen, and scientists live with the intensity of their hour. Grouped under periods and sub-periods, the stories from Columbus and Cabot to Lincoln and Lee give the child his first grasp of American history in the making, his first idea of definite form and meaning in history. In style, the work is brilliant and vital; the stories themselves absorbing. (Rand, McNally & Company, Chicago.)

"The Century Spelling Book," by J. B. Aswell, is planned to teach the use and pronunciation of words, as well as their spelling. Little space is given to words used only occasionally in a lifetime; more prominence is given to common words frequently misused and mispronounced. The work is so skilfully graded that the book may be used in any school year above the first. Directions which accompany lessons are straightforward and usable. Parts I and II, 15 cents each; one-volume edition, 25 cents. (Rand, McNally & Company, Chicago.)

"The Christmas Makers' Club," by EDITH A. SAWYER, is a Christmas book for girls. It is the story of three little girls who started a club, with an older friend to help, and later a boy as a member. The story retains its interest thru its nearly three hundred pages, and the work done by the club is suggestive of what girls elsewhere can do if they will. The book is illustrated with full-page drawings by ADA C. WILLIAMSON. (L. C. Page & Co., publishers, Boston.)

Mrs. Robert E. Peary, more than two years ago, favorably commented on Murine Eye Remedy after its application in her Family for Eye Troubles resulting from Measles and Scarlet Fever, and later recommended it to the famous Explorer, the Man who now returns to us as the Discoverer of the North Pole.

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"Boys and Girls of Seventy-Seven," by Mary P. Wells Smith, is the fourth volume of the "Old Deerfield Series." It is a story of the Revolutionary War, particularly of the events culminating in the surrender of Burgoyne. It pictures vividly the hardships endured by the men and women whose patriotism gave us a nation. It is a boys' book worth having, for it is sure to be enjoyed. (Little, Brown & Company, Boston. Price, \$1.25.)

The people who fall in love, some time since, with Aunt Jane of Kentucky will be delighted to renew acquaintance with their old friend in "The Land of Long Ago," by the same author, Eliza Calvert Hall. The later book, like its predecessor, will appeal to every reader, by reason of its sunny humor, its sweetness and sincerity, its entire fidelity to life. The new volume is especially appropriate as a gift to a woman who remembers the days of the Civil War. Price, \$1.50. (Little, Brown & Co., Boston.)

"For the Norton Name," by Hollis Godfrey, is a healthfully exciting story for young people. How George Norton saved his father's glass business and the honor of the family name, despite the efforts of the International Glass Company to ruin him, forms the basis of one of the best boys' stories of the year. It will stimulate ambition in the best possible way. (Little, Brown & Co., Boston.)

"Napoleon, the Little Corsican," by Esse V. Hathaway. The possibilities life holds cannot be explained in any better way than thru the lives of great men, and the sooner a child is shown these possibilities the earlier he will begin to work toward a definite ideal. "The Little Corsican" is the first of a series of biographies planned to meet the need of children for stories of this sort. The books of this series, "Little Lives of Great Men," will most creditably and acceptably fill the grammar-school shelves. With three full-page half-tones and 45 line drawings by Louis Braunhold. Cloth, 162 pages; 35 cents. (Rand, McNally & Company, Chicago.)

A Second Series of "Making the Most of Ourselves," by Calvin Dill Wilson, was recently issued from the press. It is a series of talks of an inspirational character. The author recognizes that it is not necessary only to acquire good qualities of character, but to know how to use them. He tells us how to acquire character and then how to use it. The topics include an appreciation and recognition of literature, digging information out of books, and holding a job. One chapter deals with forming young men's clubs, and altogether the book is worth putting into the hands of young men and growing boys. (A. C. McClurg & Co., Chicago.)

"Susanna and Sue," Kate Douglas Wiggin's story for the present year, narrates the running away of an unhappy wife, with her little girl, to live with the Shakers, with whom there is no marrying or giving in marriage. Both mother and child tire of the Shaker life after a few weeks of it, and they long so much for their home and those they really love, the husband and son left behind, that they run home again. The story is readable and helpful. (Houghton, Mifflin & Co., Boston.)

"Overheard in Fairyland" is a book of fanciful and delightful explanations of the origin and characteristics of trees, flowers, and other elements of plant life. They are fairy tales, told by Mother Nature, but as such they rank high. The ten-year-old girl will delight in these charming tales. The book is illustrated in colors by Ruth S. Clements. Price, \$1.50. (Little, Brown & Company, Boston.)

"The Land of the Blue Flower" is a dainty prose poem, by Frances Hodgson Burnett. It might be called a parable, so beautiful is it of itself and so strong is the lesson it preaches. "There is no time for anger," "There is no time for hate," "There is no time to fret"—if we could all learn these lessons, what a beautiful world this would be; so Mrs. Burnett tells us in her little story. 75 cents. (Moffat, Yard & Co., New York.)

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### Here and There

The Woman's School Alliance of Milwaukee, during the past year, served 34,300 penny lunches and supplied 200 needy children with clothing and shoes at an expenditure of \$1,525.87.

Chicago had a day late in August, set apart by proclamation, of the mayor, for a general cleaning up thruout the city, says *The Youth's Companion*. Such days have been common in recent years in Western cities, but usually they have been selected in the early spring, and chiefly for the sake of a neater and more attractive city. The midsummer cleaning up of Chicago's back yards, alleys and vacant lots was a recognition of the fact that unclean conditions at that season are most dangerous to the public health.

One of the merits of the Isaac Pitman system is that it is self-illuminating. Strangers do as much for it as its friends. It was accepted by Columbia University without the slightest solicitation on any one's part and without even the knowledge of the publishers of the system. Nor was the acceptance by Columbia University of this system instantaneous. During last fall, winter, and spring classes were conducted at the Barnard Colleges and Earl Hall Christian Associations, composed of Columbia students. One of the young men, even before the expiration of the 102-hour course, and with no previous knowledge of shorthand, successfully passed

the examination of the New York Board of Education for a license to teach shorthand in the public schools.

### School Book Legislation

A recent school law of Illinois fixes the maximum retail price at which text-books may be sold in that state. These prices range from five cents for a copy book to 75 cents for a complete geography. The law contains an anti-trust provision to the effect that publishers desiring to sell text-books in the state shall "file at the office of the superintendent of public instruction a sworn statement showing the ownership of said publishing house, with the interest, names and addresses of all owners or persons interested therein, and specifically stating whether said publisher or the owner of any interest or share . . . of such publishing house is the owner of any interest or share . . . of any other publishing house, and if so, giving the name and address thereof."

### Venerable Trinity School

"In these bustling days it is not without surprise that one finds in the most bustling city of America a boys' school that has been going quietly and effectually about its daily business for two hundred years," writes William Inglis, in the issue of *Harper's Weekly* for October 2d. Yet this is the record of Trinity School, New York, which was established by William Huddleston in 1709, to train Dutch boys in the principles of the Church of Eng-

land and to impart to them concurrently a thoro secular education. A farm left to the school by Dr. Baker in 1796, embracing a tract of land extending from what is now Fifth Avenue to the East River, between Seventieth and Eightieth Streets, laid the foundation of its fortunes, and, after drifting from site to site like the *Flying Dutchman*, it found a secure harbor in its present location on West Ninety-first Street.

### Free Scholarships Available

The Philadelphia School for Nurses, during the past year, supplied nurses to 10,275 patients who otherwise could not have secured skilled nursing care. Four-fifths of this service was rendered gratuitously. In teaching facilities, available workers and number of students, the school now ranks as the largest school for nurses in the world. A large number of free two-year scholarships are available to young women thruout the entire country, preference being given to those living in the smaller towns and cities, and the rural districts. These scholarships include room, board, laundering, uniforms, all necessary instruction, and railroad fare paid to the student's home town upon the completion of the course. A preparatory Home Study Course and a Short Resident Course are also available to those who desire to quickly prepare themselves for self-support, but are unable to devote two years to study. Address the school at 2219 Chestnut Street, Philadelphia, Pa.

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## Polar Nonsense

### The House That Cook Built

This is the house that Cook built.  
This is the grub that lay in the house  
that Cook built.

This is the man who gave out on the  
way and was sent by Cook to the  
shack to stay and make free use  
of the grub that lay in the house  
that Cook built.

This is the sailor all savage and grim,  
who replaced the man with the  
crippled limb and was given a  
note from Peary that said, "This  
man is in charge because Cook is  
dead," and gobbled the grub that  
lay in the house that Cook built.

This is the sportsman all jaunty and  
gay, who strolled up into the Arctic  
to play, and dropt in at the  
shack of his friend on the way,  
and encountered a sailor all savage  
and grim, who replaced the  
man with a crippled limb and had  
a note from Peary which said:  
"This man is in charge because  
Cook is dead," and gobbled the  
grub that lay in the house that  
Cook built.

This is the owner just back from the  
Pole, who called at his house and  
found it quite droll that his guest,  
the sportsman so jaunty and gay  
who had strolled up into the Arctic  
to play and had stopt at the  
shack of his friend on the way,  
should be slave to a sailor all  
savage and grim, who replaced  
the man with a crippled limb, and  
showed him a note from Peary  
that said, "This man is in charge  
because Cook is dead," and gob-  
bled the grub that lay in the house  
that Cook built.—*Springfield Re-  
publican.*

### Scientific Proofs

"I will now," reports our bold ex-  
plorer, "proceed (copyright) to give a  
full account (copyright) of my discov-  
ery of the North Pole (copyright).  
I am a member in good standing  
(copyright) of the North Pole Discov-  
erers' Trust. (Copyrighted in Eu-  
rope, Asia, Mexico and the United  
States. All rights reserved.) I ob-  
tained its license in due form (copy-  
right) and was given exclusive rights  
of discovery. (Copyright. All rights  
reserved.) And I will now give a full  
account of my discovery of the North  
Pole. (Copyright.)

"First (copyright), I will supply my  
scientific proof. (Infringements will  
be prosecuted.) The proof that I dis-  
covered the North Pole is this (copy-  
right): Cook is a liar. He is two  
liars. He has amalgam instead of  
gold in his back teeth. (Copyright.)

He owes four dollars (copyright) and  
fifteen cents to his butcher, and (copy-  
right) where's his license from the  
North Pole Discoverers' Union? How  
can a man discover the North Pole  
without a license?

"Respectfully submitting these sci-  
entific proofs of my discovery to the  
candid consideration of an enlightened  
world. (Copyright. All rights re-  
served. Publication without permis-  
sion prohibited.) I invoke (copyright)  
its judgment (copyright) and ap-  
plause."—*Los Angeles Express.*

### How It Really Happened

Twelve little Eskimos looking for a job  
Hunting for the Pole, so they shipped  
with Bob.

Twelve little Eskimos, dancing for the  
men,  
Two slipt overboard, then there were  
ten.

Ten little Eskimos got a snack with  
wine,  
One praised Dr. Cook, then there  
were nine."

Nine little Eskimos ate till very late;  
One overate and then there were eight.

Eight little Eskimos did the work of  
eleven;  
One couldn't stand it, then there were  
seven.

Seven little Eskimos found some Yan-  
kee "mix";  
One drank a horse dose, then there  
were six.

Six little Eskimos didn't seem to  
thrive  
On hot atmosphere, and so there were  
five.

Five little Eskimos, feeling pretty  
sore,  
One slipt the Roosevelt, then there  
were four.

Four little Eskimos on the Polar Sea,  
One got cold feet and then there were  
three.

Three little Eskimos, feeling pretty  
blue,  
One said, "Adieu, Bob," then there  
were two.

Two little Eskimos on the final run;  
Peary said, "Skiddoo there," then there  
was one.

One little Eskimo, looking down the  
hole,  
Said, "Dr. Cook has been here, there  
ain't no Pole!"

—*Boston Herald.*

### Arctic Experts

Smith said that Cook was surely first  
To stand upon the Pole.  
And Brown said Peary was the man  
Who won the icy goal.  
Brown added then a few remarks  
On Smith's veracity,  
And Smith responded with a punch  
On Brown's anatomy.

Now, where had Brown gained Arctic  
lore

To give his views such weight?  
He once within a skating-rink  
Had cut the figure 8.

And where had Smith acquired his  
fund

Of information rare?  
Some years ago in Central Park  
He saw a polar bear.

—*New York Sun.*

## "In Delay There Lies No Plenty"

Shakespeare

But in the immediate and  
continuous use of these books  
there rests a fair and increas-  
ing harvest. Look them over.

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powers. Estelle C. Jenney, High  
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because they have a definite idea  
of the best way to develop their  
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and the only one of its kind in  
modern English. We all know  
with Thomas Warton that "Chau-  
cer is a brilliant day in the Eng-  
lish spring" and in the present re-  
vival of Chaucer interest, the ad-  
vent of the Pilgrims in this ver-  
sion seems to bring the "day"  
much nearer. Embodying all the  
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thos that makes the great author's  
work such "an unceasing delight,"  
the tale has the added value of  
easier reading. In placing this  
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against the trouble. The book is  
meant to do effective work—to  
teach children how to spell—how  
to spell correctly. Its method is  
all directed to the training of the  
eye—to see; the ear—to hear; the  
hand—to write; the mind—to use  
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Washington, 1505 Penn Ave. Denver, 405 Cooper Building Berkeley, Cal., 2142 Shattuck Ave.  
Chicago, 203 Michigan Ave. Spokane, 618 Peyton Building Los Angeles, 238 Douglas Bldg.

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H. E. REED, Manager

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## SCHERMERHORN TEACHERS' AGENCY

The Agency that selects one candidate for a position is sure to meet your want's. Consult us and be sure.  
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## ALBANY TEACHERS' AGENCY

Has good positions for good teachers with good records.

Send for Circulars

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## MIDLAND TEACHERS' AGENCIES

Warrensburg, Mo. Shepherdsville, Ky. Webster, No. Dakota Pendleton, Oregon  
Many desirable positions to offer teachers of the first grade.  
CO-OPERATIVE No enrollment fees. Blank and booklet from any office.

In answering advertisements please mention "The School Journal"

The G. & C. Merriam Company of Springfield, Mass., have just issued Webster's New International Dictionary, based on the International of 1890 and 1900. The revision has been so radical and complete as to constitute a new book. The work has been in active preparation for many years, by a large staff of experts, assisted by the contributions of eminent specialists, under the general supervision of Dr. W. T. Harris, recent U.S. Commissioner of Education. The number of words and phrases defined has been greatly increased, mainly from the fresh coinage of recent years, both in popular speech and in the various arts and sciences. The revival of early English studies is recognized by such an inclusion of obsolete words as to give a key to English literature from its earliest period. The title-words in the vocabulary are more than doubled in comparison with the old International, now exceeding 400,000. The number of illustrations is increased to over 6,000. The book contains more than 2,700 pages. But the publishers desire to emphasize the quality rather than the quantity of the work, calling attention especially to the thorough scholarship in all departments and the fullness of information under important titles. By ingenious methods of typography and arrangement, the increased amount of matter is contained within a single volume, not perceptibly larger than its predecessor, and no less convenient for the hand and eye.

Franz Hanfstaengl Fine Arts Publishing Co., of 31 West 31st Street, New York City, is one of the oldest, leading and most reliable fine art Publishing Houses in the city. They have just issued a new series of colored pictures for schools that differ materially from any published heretofore and which for superior excellence and design are unrivalled. The subjects have been selected with great care and discrimination and the scenes depicted possess a historical value of dramatic interest and familiar incident.

They directly appeal to an understanding of those for whom those series were especially prepared. For those teachers who are interested in beautifying their schoolroom a list of subjects and prices will be sent on addressing the firm at the address given above. See advertisement on page 111.

## Cabby is Clever

A 'bus driver who was endeavoring to pass a brewer's dray had just managed to find an opening, when a four-wheeled cab of rather dilapidated appearance managed to get in front, and compelled him to stop behind.

"Halloa!" shouted the exasperated 'bus driver, "look where yer comin' to with that bloomin' rabbit-hutch!"

The "fare," who was a clergyman, put his head out of the window of the cab when he heard the exclamation, and remarked, "What a rude man!"

"Halloa! bunny," shouted the cabby, "are you there, too?"

The parson collapsed.—Exchange.

## Rest and Health for Mother and Child.

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At the Fourth International Speed Contest, Providence, R. I., April 10, 1909, Miss Nellie M. Wood wins for the third time and permanently, the Eagan International Cup, with a gross speed of 280 words per minute, and a net speed of 264 words per minute. Writers of all the principal systems were represented in this contest. The scale below represents the highest NET speeds attained by the different systems in the

First International Speed Contest, Baltimore, 1906	
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Gross	64
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\$1.50

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Bastian Bros. Co., 242 South Ave., Rochester, N. Y.

**LEARN STORY WRITING** We teach by mail in your spare time and help sell your work. Also courses in journalism and simplified spelling.  
American Literary Bureau, Dept. 14, Chicago, Ill.

## Her Little Scheme

There was a hen  
Too old to lay;  
The farmer men  
Oft looked her way;  
She saw them at her slyly winking,  
And so began to do some thinking.

She knew that she  
Could earn no corn,  
And fricassee  
Might soon adorn;  
But boldly she the problem tackled,  
When others layed she loudly cackled.

Her little scheme  
Worked well, indeed;  
Her owners deem  
Her worth her feed.

About the yard she waxes fatter,  
And still escapes the dreaded platter.  
—Louisville Courier-Journal.

## The Endless Chain

Ten ten—an apple, rosy red;  
Ten twenty—square of gingerbread;  
Ten thirty—bread and butter, laid  
With jelly, jam, or marmalade;  
Eleven—carrots haply found  
While in the garden digging 'round;  
And milk, a glassful from some crock  
Drained eagerly at twelve o'clock.

Twelve thirty—lunch, for Baby needs  
The wholesome food whereon he feeds;  
Down cup, plate, spoon from pantry  
shelf

The while he stuffs his little self;  
At two—gum drops and taffy sticks;  
Two thirty—cake and peanut bricks;  
Two forty-five—more milk and then  
A square of gingerbread again.

No sign of hunger now till three;  
A doughnut then, all sugary;  
More milk, a pear, some cabbage  
stalks,  
For he finds food where'er he walks.  
Three thirty—cookies, currant buns,  
You know—the yellow, fluffy ones;  
More fruit, more smuggled carrots,  
more

Of flotsam, jetsam—now 'tis four.  
Four ten—the pangs of hunger make  
More room in him for milk and cake;  
For oh, what wonder and delight  
To have a childish appetite.  
Four thirty—popcorn, cookies, tarts,  
With butter scotch and candy hearts,  
At five—an ice-cream cone or more  
Bought from some corner soda store.

Five thirty—half a slice of bread  
With currant jelly thickly spread;  
Five forty-five—a childish heart  
Made happy with a bun or tart.  
Now six, and dinner long delayed,  
More jam, more bread, more marmalade,  
Now restful sleep—now peaceful  
night;

Oh, wondrous, childish appetite!  
—J. W. FOLEY, in the New York Times.

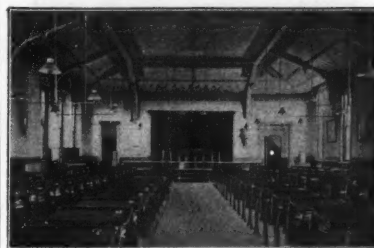
The Remington Typewriter Company have just made the announcement that during August the sales of Remington typewriters exceeded, with one exception only, any previous month in typewriter history, and the total Remington business up to September 1 exceeded by many thousands of typewriters the largest total for the first eight months of any previous year in the history of the company.

The record-breaking business done by the company during the month of August was especially significant because August is the vacation month, and is usually, in fact almost invariably, the quietest month for business in the entire year.

## Why Contagious Diseases Are So Quickly Transmitted In Schoolrooms

**E** DUCATORS are rapidly coming to a realization of the fact that "dust" is the principal cause of disease transmission among school-children. The floors in schoolrooms are bare, and when large numbers of pupils are assembled the constant motion of feet produces a continuous circulation of dust. From tests made with dust collected from schoolrooms and other places of public assembly, it has been found that with the dust were uncountable myriads of disease germs—bacilli of Tuberculosis, Typhoid Fever, Diphtheria, Pneumonia and other dangerous diseases.

To do away with this menace, to avoid the dangers of dust-poisoning, it is not only necessary to provide a system of ample ventilation, but also to treat the wood floors in such a way that dust and germs cannot pollute the atmosphere.



Standard Floor Dressing has proved itself a perfectly satisfactory dust-preventive. By keeping the floors at a proper degree of moisture the dressing catches and holds every particle of dust and every germ coming in contact with it. Tests have been conducted to determine the quantity of dust and number of organisms which would settle on a given surface. Results prove that the dust from floors treated with Standard Floor Dressing is twelve times greater in weight than that collected from untreated floors. The inference is obvious—the balance of disease-laden dust in the rooms with untreated floors was circulating through the air, because even after settling on the floor every current of air would disturb it and start it afloat again. Another test proved that dust once settled upon a floor treated with Standard Floor Dressing remained there, and a bacteriological examination demonstrated that 97½ per cent. of all the disease-germs caught with the dust were destroyed outright.

Standard Floor Dressing also prevents the wood from splintering and cracking.

While Standard Floor Dressing is not intended for use in the home, it is intended for use in public buildings of every description.

It is sold in convenient form by dealers in every locality, and may be had in full barrels, half-barrels, one-gallon and five-gallon cans.

Three or four treatments a year give best results, and when spread with the patent Standard Oiler may be used very economically.

In order to convince those who are really interested, we are making an extraordinary offer. Select one floor or corridor in any building under your supervision, and we will dress that floor with Standard Floor Dressing AT OUR OWN EXPENSE.



To localities far removed from our agencies, we will send free sample with full directions for applying.

Write for our book, "Dust and Its Dangers," and for testimonials and reports.

**STANDARD OIL CO.**  
(Incorporated)

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**Cannot harm healthy human bodies. We cannot have healthy bodies unless we have pure blood,—the kind of blood that Hood's Sarsaparilla makes.**

This great medicine has an unequalled, unapproached record for purifying and enriching the blood.

It cures scrofula, eczema, eruptions, catarrh, rheumatism, anemia, nervousness, that tired feeling, dyspepsia, loss of appetite, general debility, and builds up the whole system.

Get it today in the usual liquid form or in chocolate tablet form called Sarsatabs.

## Todd Adjustable Hand Loom



No. 1 LOOM. 20 x 20 in.

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BOOKS ON HAND WORK

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**BOOKS**

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Write for new  
catalogue and  
prices.

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375 Madison St.  
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**New Haven Normal School of Gymnastics**  
307 York Street, New Haven, Conn.

Two years' course in recreative, educational and medical gymnastics, fitting for teacher of physical training and playground director. Summer session. Write for catalogue.

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CHIME,  
SCHOOL  
& OTHER BELLS**

**CATALOG ON REQUEST**  
A. S. BARNES & CO.  
NEW YORK

## Model Reading Course

The papers are beginning to notice the Bay View reading courses, which seem to be coming into much favor. They are brief, inexpensive and have many advantages. Teachers who know the value of reading for a purpose are giving them much attention, and already over 25,000 people are taking them. They can be taken alone, but in many places the teachers and friends have formed clubs and are delighted. J. M. Hall, Boston Boulevard, Detroit, Mich., is the one to address for circulars. Happy is the teacher who has in reach the delightful art or travel or other recreations of a reading course and often finds in them a refuge from the stress of professional life.

Our readers will note in the advertisement of Beecham's Pills, on another page, that their New York Agency, B. F. Allen & Co., 367 Canal Street, will send them on request a book entitled "Help the Scholars," containing weights and measures and other valuable information. The book was gotten up at a very large expense and is given free by simply sending a postal to the firm at the address above given.

Mr. Robert Alvin Augustine has introduced a new system of voice culture and gives convincing proof in a few lessons. See advertisement on another page.

The president of the University of California has a salary allowance of \$12,000, with an allowance of \$3,000 for entertainment.

The poem "Little Gustava," which appeared in THE SCHOOL JOURNAL for October, was by mistake credited to St. Nicholas. Celia Thaxter was the author of the poem, the copyright of which is held by Houghton, Mifflin & Co., Boston.

## "The Bright Side"

Dr. Charles R. Skinner, former State Superintendent of Public Instruction of New York, has compiled a book of cheery thoughts under the happy title of "The Bright Side." Teachers looking for a gift book that will be welcomed as a home companion ever ready to dispense courage and comfort will want to send for a copy. Frank Beattys, New York City, is the publisher. An announcement of the book appears elsewhere in this number.

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and training  
schools. A reference  
book for  
teachers of gram-  
mar and English

¶ The reasons which lie  
behind formal rules are  
presented. The growth of  
language is discussed.  
Questions of the best usage  
are considered.

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modern thought on the  
subject of English gram-  
mar as it can be found  
nowhere else."

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**A. S. Barnes & Co.**

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THE PERFECT PURITY of HAND  
SAPOLIO makes it a very desirable toilet  
article; it contains no animal fats, but is made  
from the most healthful of the vegetable oils.  
It is truly the "Dainty Woman's Friend."  
Its use is a fine habit.